Safer Chemicals and Environmentally Preferable Purchasing (EPP)
Joint UCB/USGBC Workshop: Driving Safer Design with Information and Policy
February 20, 2014
Vanessa Lochner, EPP Director
What is EPP?

Environmentally Preferable Purchasing (EPP)

- The purchase of products and services, the environmental impacts of which have been considered and found to be less damaging to the environment and human health when compared to competing products and services
EPP Attributes

Environmentally Preferable Purchasing Program

- Safer Chemicals
- Cleaner Energy
- Healthier Food
- Less Water
- Less Waste
Chemicals in Commerce

- Approximately 85,000 chemicals in United States commerce
- 2,000 new chemicals each year
- Few chemicals used by the industry are tested for safety, not required by regulation
- Only 5 chemicals have been banned or restricted by the EPA in 34 years

Source: http://ntp.niehs.nih.gov/?objectid=7201637B-BDB7-CEBA-F57E39896A08F1BB
http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/basic.html#howto
Exposure

Image Source: http://www.completesense.com/gkconcerns.html

1. World Resources Institutes, The 1994 Information Please Environmental Almanac
3. Same as above
Harmful Effects on Human Health

Product chemical additives and components

- Hormone system damage
- Early pubescence
- Neurological disorders
- Decreased IQ
- Cancer
- Seizures
- Reproductive system disorder
- Birth defects

European Commission
National Research Council
Mt. Sinai School of Medicine Center for Children's Health and the Environment
Environment Canada
What Part of Our Chronic Disease Problem Comes from Chemicals?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Disease Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>chronic disease*</td>
</tr>
<tr>
<td>3%</td>
<td>developmental disabilities**</td>
</tr>
<tr>
<td>5%</td>
<td>childhood cancer***</td>
</tr>
<tr>
<td>10%</td>
<td>diabetes, Parkinson’s Disease and neurodevelopmental disabilities****</td>
</tr>
<tr>
<td>30%</td>
<td>childhood asthma***</td>
</tr>
</tbody>
</table>


*European Commission
** National Research Council
***Mt. Sinai School of Medicine Center for Children’s Health and the Environment
****Environment Canada

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Kaiser Permanente Safer Chemical Strategies

- Environmentally Preferable Purchasing Policy
- Safer Chemicals Organizational Guideline
- Sustainability Scorecard for Medical Products
- Safer Chemicals Targeted Products
EPP Policy

History
In 2006, the EPP policy was created in support of Kaiser Permanente’s mission to improve the health of our members and the communities we serve. The policy, which went into effect in May of 2006, requires that the principles of EPP be applied to all major purchasing decisions.

The EPP policy mandates the following specific environmental criteria for all purchasing decisions:

<table>
<thead>
<tr>
<th>Avoid products containing:</th>
<th>Promote the purchase of:</th>
<th>Encourage suppliers to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistent bioaccumulative toxic (PBT) compounds</td>
<td>Building products, materials and furnishings that do not adversely impact indoor air quality</td>
<td>Package units in minimal packaging that is recyclable, non toxic or bio-based</td>
</tr>
<tr>
<td>Bisphenol-A (BPA)</td>
<td>Building products, materials and furnishings that are approved by National Facilities Services Planning &amp; Standards</td>
<td>Transport products with minimal packaging, move to bio-based packaging</td>
</tr>
<tr>
<td>Carcinogens, mutagens and reproductive toxic chemicals</td>
<td>Products with high post-consumer recycled content</td>
<td>Manufacture products that use less energy and water during normal use</td>
</tr>
<tr>
<td>Halogenated flame retardants</td>
<td>Products that are readily recycled, reprocessed, and/or reused</td>
<td>Manufacture products that use less water and energy during manufacturing</td>
</tr>
<tr>
<td>Chlorine-containing flame retardants</td>
<td>Products that are latex-free</td>
<td>Manufacture products with attributes listed (i.e., chlorine-free, latex-free, non-toxic)</td>
</tr>
<tr>
<td>Latex</td>
<td>Products that do not contain or contain a reduced amount of toxins</td>
<td></td>
</tr>
<tr>
<td>Mercury</td>
<td>Products that have “Take Back” provisions</td>
<td></td>
</tr>
<tr>
<td>Phthalates (e.g. plasticizer DEHP (di-2-ethylhexyl phthalate)</td>
<td>Paper products that are chlorine-free</td>
<td></td>
</tr>
</tbody>
</table>
Organizational Guideline

Chemicals

To advance an economy where the production and use of chemicals are not harmful for humans as well as for our global environment and its non-human inhabitants, Kaiser Permanente adopts the following five guiding principles for chemicals:

1. Understand product chemistry
2. Assess and avoid hazards
3. Commit to continuous improvement
4. Support specified industry standards
5. Inform public policies
# Kaiser Permanente Sustainability Scorecard for Medical Products

## Corporate Level Questions
Corporate-level questions apply to your company’s total performance. Including but not limited to headquarters, owned, operated, or leased manufacturing facilities, subsidiary manufacturing facilities, and partner manufacturing facilities.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does your company have an established environmentally preferable purchasing and supply chain program?</td>
<td>Y/N, description</td>
</tr>
<tr>
<td>2. Does your company have a goal to steadily increase employee access to local, sustainable food in your cafeterias and vending areas?</td>
<td>Y/N</td>
</tr>
<tr>
<td>3. Has your company published a sustainability report? If yes, for how many years?</td>
<td>Y/N, # of years</td>
</tr>
<tr>
<td>4. Do you participate in any public reporting, such as through the Global Reporting Initiative (GRI, <a href="http://www.globalreporting.org">www.globalreporting.org</a>)? If yes, please list.</td>
<td>Y/N, list</td>
</tr>
<tr>
<td>5. What percent of total facilities that manufacture products sold by your company and its subsidiaries are certified under ISO 14001?</td>
<td>Y/N, list</td>
</tr>
<tr>
<td>6. In the previous fiscal year (FY), what was the monetary value (in US dollars) of significant fines (including those currently under appeal), and total number of non-monetary sanctions, for non-compliance with local, national, or international environmental laws and regulations?</td>
<td>$, #</td>
</tr>
<tr>
<td>7. In the previous year, what percent of total waste generated by your company and its subsidiaries was recycled or reused?</td>
<td>%</td>
</tr>
<tr>
<td>8. What percent of total weight of manufacturing input material is recycled material? (Use GRI estimation methods to obtain answer)</td>
<td>%</td>
</tr>
<tr>
<td>9. Do you offer any end-of-life product take-back programs, including electronics? If yes, please list all items you take back for responsible recycling, donation, or reuse, and outline the process for participating in the program.</td>
<td>Y/N, list</td>
</tr>
<tr>
<td>10. Do you internal and take-back recycling programs exclusively use qualified or certified e-Stewards (<a href="http://e-stewards.org/certification-overview">http://e-stewards.org/certification-overview</a>) to ensure proper handling of all electronic products and materials through final disposition?</td>
<td>Y/N</td>
</tr>
<tr>
<td>11. Have you measured and taken steps to reduce your company’s and its subsidiaries’ greenhouse gas emissions (GHG)? If so, have you opted to report your GHGs and climate change strategy to the Carbon Disclosure Project (CDP)?</td>
<td>Y/N, # of years, Y/N</td>
</tr>
<tr>
<td>12. In the previous year, what percent of energy your company and its subsidiaries consumed was derived from eligible renewable sources?</td>
<td>%</td>
</tr>
<tr>
<td>13. Does your company require the purchase of EPEAT-registered electronic products for internal use? (<a href="http://www.epateregistered.com">www.epateregistered.com</a>)</td>
<td>%</td>
</tr>
<tr>
<td>14. Does your company require the purchase of EnergyStar-rated electronic products for internal use? (<a href="http://www.energystar.gov">www.energystar.gov</a>)</td>
<td>%</td>
</tr>
<tr>
<td>15. Are all entities managing your distribution and transportation EMA Smartway Partners? If so, provide a weighted average of their scores (<a href="http://www.epa.gov/smartway/basic-information/index.html">http://www.epa.gov/smartway/basic-information/index.html</a>)</td>
<td>Y/N, weighted avg.</td>
</tr>
<tr>
<td>16. Do you have a commitment to know all of the chemical and material ingredients, above 100ppm, of products sold by your company and its subsidiaries in the United States? If yes, is the list publicly available or available through a third party?</td>
<td>Y/N</td>
</tr>
</tbody>
</table>

## SKU-Level Questions

| SKU | Product Name | Designed for neonatal or pediatric applications | Free of intentionally added latex in any material touched by patients or practitioners | Free of intentionally added BPA or BPS derived chemicals (including thermal paper) | All homogenous materials contain less than 1000 ppm of bromine and chlorine-based compounds | Free of Polyvinyl Chloride | Free of any intentionally added phthalate, including DE-Pl | Free of any intentionally added formaldehyde | Free of any intentionally added phthalate, including DE-Pl | If not to (A), List Chemical Abstracts Service (CAS) if it’s separated by “.” | Does not create hazardous waste on its own or when aggregated | Designed for multi-use (e.g. reprocessable or for use on multiple patients) | Product and packaging are labeled clearly with material type identification codes | Contains more than 10% post-consumer recycled content | Primary Packaging - Contain more than 10% post-consumer recycled content | Secondary Packaging - Contain more than 30% post-consumer recycled content | Product code environmentally preferable? |
|-----|--------------|-----------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------|--------------------------------|---------------------------------------------------------------|
|     |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
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| 2   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 3   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 4   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 5   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 6   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 7   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 8   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 9   |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 10  |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 11  |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 12  |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 13  |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 14  |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
| 15  |              |                                               |                                                                                   |                                                                                 |                                                                                 |                         |                                |                                |                                |                                                                 |                                                          |                                               |                          |                                                               |                                         |                                                                 |
The Process

Chemical / Product
Responsible Dept
Hazard Assessment
Current State Assessment
Chemical Disclosure
Evaluation of Chemical Disclosure
Research Marketplace for Alternatives
Sourcing Process
Criteria or definition of “Safer”
% of Products “Safer”
Approval and Implementation
Targeted Products

- High level disinfectants
- IV piggyback, tubing, bags
- Infant Skin Care
- Fixatives
- Solvents
- Enzymatic detergents
- Resilient flooring
- Casework
- Paint
- Dialysis tubing
- Adult & Neonatal Therapeutic Surfaces
- EVS cleaning chemicals

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Kaiser Permanente’s Implemented Successes

- Latex-free Exam Gloves
- Mercury-free Thermometers and Sphygs
- PVC-free Carpeting/resilient flooring
- Implemented Sustainability criteria for fabrics
- DEHP/PVC-free IV Bags and Tubing
- PVC-free and DEHP-free Split-Tip Chronic Dialysis Catheters
Challenges

- Availability of chemical information
  - Chemical ingredients
  - Hazards
- Greenwashing
- Alternatives
  - Safer alternative may not be available
  - Alternatives may not have been tested
Industry Movement

- Leaner Energy
- Less Waste
- Safer Chemicals
- Healthier Food
- Smarter Purchasing
Thank you

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