

Promoting Green Chemistry Through Product Stewardship

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Status of Green Chemistry at the MPCA

- Green Chemistry Initiative under development
- Pollution prevention program
 - Better by Design Guide- 2006
- Focus on specific materials and products
- Engage manufacturers in reducing environmental impacts
- Promote alternatives



Product Stewardship

- **Product stewardship** means that all parties involved in designing, manufacturing, selling and using a product take responsibility for environmental impacts at every stage of that product's life.
- **Extended Producer Responsibility** is an environmental policy approach in which a producer's responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product's life cycle. There are two key features of EPR policy: (1) the shifting of responsibility (physically and/or economically, fully or partially) upstream to the producer and away from municipalities, and (2) to provide incentives to producers to take environmental considerations into the design of the product. (OECD)
- Policy principle that extends up and down the product chain.



Promoting Green Design

- Reduce overall lifecycle impacts
- Internalize the environmental costs of products
- Create feedback between recyclers and manufacturers
- Serves as incentive to develop alternatives
 - Less toxic and hazardous constituents
 - Easier to disassemble and recycle
- Materials restrictions
 - RoHS, ELVs



Stewardship Policy Considerations

- Individual vs. collective responsibility
- Voluntary vs. mandated approaches
- Financing mechanism
 - Return vs. market share
 - Flexible producer responsibility vs. “eco-fees”
- Scope of products
- Performance metrics
- Materials restrictions



Product Stewardship in MN

- **Rechargeable batteries**
 - Spurred RBRC
 - Alternative battery chemistries
- **Electronics**
 - Minnesota Electronics Recycling Act
 - RoHS compliance
- **Mercury-containing products**
- **Product standards and certification**
 - EPEAT
 - Carpet, textiles, modular furniture



Minnesota Electronics Recycling Act

- Followed five years of legislative debate
- Signed by Governor Pawlenty on May 8, 2007
- Based on Midwest E-waste Policy Initiative Model.
 - Obligation determined by previous year sales of VDDs.
 - Annual registration fee
 - Retailers report sales to manufacturers
 - Additional credit for collection in rural areas
 - If manufacturers opt or fail to meet obligation, .30, .40, or .50 fee
 - Manufacturers can apply credits to future years or sell
 - RoHS compliance



Progress to Date

- **48 registered recyclers**
 - 30 are located in MN
- **171 collectors**
 - 210 permanent collection sites
 - 69 counties have permanent sites listed
- **74 registered manufacturers**
 - 149 brands
- **20 million lbs. collected (estimate)**



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