



MASSACHUSETTS' TOXICS USE REDUCTION INSTITUTE

CLEANER TECHNOLOGY DEMONSTRATION SITES PROGRAM

SUMMARY OF EVENTS IN 2002

For 2002, the Toxics Use Reduction Institute (TURI) focused its Cleaner Technology Demonstration Site program on specific issues of concern to industry as a result of new, more stringent reporting requirements, and the TURA program's current focus on environmental stewardship. TURI identified the following demonstration priorities in selecting sites: facilities that use or generate persistent, bioaccumulative toxics; specific industry focus areas, including lead-free electronics, wire and cable coating, surface cleaning, or utilities; industries that have implemented innovative energy and/or resource efficiency technologies or techniques; facilities utilizing green chemistry to accomplish TUR; and industries that implement environmental management systems that emphasize P2 and health and safety.

The following organizations have received funding from TURI to demonstrate innovative techniques and/or technologies that apply to the focus areas identified above.

Energy conservation techniques and methods for peak shaving

TEXAS INSTRUMENTS *Attleboro*

TI is an established leader in TUR, implementing many innovative TUR techniques in the past ten years. As part of its on-going efforts, TI has employed innovative methods for minimizing its daily energy requirements and saving money. TI will demonstrate two of its more innovative energy management techniques: free cooling, and peak shaving. TI installed heat exchangers in its chiller systems to utilize atmospheric conditions to achieve its cooling needs, rather than requiring costly energy input from its on site power plant. The peak shaving project utilizes ice-making capabilities to create alternative sources of cooling (ice) during low energy use times (evening). These technologies have resulted in a significantly reduced energy consumption profile at the facility, reducing its associated generation and emissions of polycyclic aromatic compounds and other toxic chemicals.

INSTITUTE FOR PLASTICS INNOVATIONS *Lowell*

Green materials applications in wire and cable coating industry

IPI will host a demonstration of its research and development capabilities at its University of Massachusetts Lowell facility. Dr. Stephen McCarthy, Director of IPI, is currently funded under the University Research in Sustainable Technologies program to identify alternative materials that do not include toxic materials, such as lead, for use in the wire and cable coating industry. This demonstration will provide an opportunity for Massachusetts' wire and cable coating company representatives to tour the IPI laboratories, gain a better understanding of its capabilities, and participate in a demonstration extrusion of innovative wire coating materials.

REXAM IMAGE PRODUCTS
South Hadley

*Green chemistry thinking applied to new
product development and process modifications*

Rexam has proactively sought to minimize its use of reportable toxic chemicals through process and product modifications. Employing green chemistry thinking, Rexam has developed product lines that utilize non-solvent based coatings and reaction conditions, including water-based and UV-curable coatings, to significantly reduce the amount of toxic organic chemicals it uses and releases annually. Rexam will be presenting information on the decision-making process for switching its primary product lines, the impact of the changes made, and will provide a facility tour of traditional and innovative technology. The information provided, and the contrast demonstrated, will offer insight into how other industries in Massachusetts could modify their products and/or processing techniques in similar ways.

Look for the full brochure in your mail soon.

Dates for scheduled events are as follows:

- **Texas Instruments, Attleboro** – Innovative Energy Conservation Techniques
 - Wednesday, April 17, 9 am – 12 pm
 - Thursday, May 2, 9 am – 12 pm

- **Institute for Plastics Innovations, Lowell** – Green Materials for Wire/Cable Coating
 - Thursday, April 25, 12 pm – 3 pm
 - Friday, April 26, 9 am – 12 pm

- **Rexam Image Products, South Hadley** – Green Chemistry in Product/Process Development
 - Tuesday, May 14, 9 am – 1 pm
 - Thursday, May 30, 12 pm – 4 pm

There is no cost to attend these events, however attendance will be limited to approximately 20 per site visit. TUR Planners can apply to the Massachusetts Department of Environmental Protection to receive Continuing Education Units for attending these events.

Please contact Pam Eliason at 978-934-3142 or via email at [Pamela Eliason@uml.edu](mailto:Pamela.Eliason@uml.edu) for more information about these events, and to register. Registration must be received at least two weeks prior to the scheduled event.