



**Society of Plastics Engineers, Inc.**

*Promoting the Scientific and Engineering Knowledge of Plastics*

**SPE Plastics Environmental Division**

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## **Society of Plastics Engineers, Environmental Division: February 2002 Newsletter**

The Global Plastic Environmental Conference (GPEC) sponsored by this Division held in Detroit, Michigan on February 13 & 14 was a tremendous success. Larry Koester, the GPEC Chairperson, says "GPEC far exceeded the committee's expectations, and was the best Division conference in over five years." Terry Browitt, SPE President, said "this conference indicates that we may have turned the corner of these troubled times." There were 278 registrants, and 55 papers presented, including papers from Belgium, Brazil, France, Germany, Italy, Puerto Rico, Switzerland and United Kingdom. There were several registrants from Europe, and we had a good representation of Student Posters.

On the first day the Mayor of Detroit, Kwame Kilpatrick, gave an enthusiastic welcome to the attendees. Other keynote speakers included, Donald Duncan - President of Society of Plastics Industries Inc., and Tim Burns - President of The Vinyl Institute, followed at lunch by Dr. William Hsu - Vice President, Dupont, and Patent Attorney Edward Weisz.

On the second day, SPE President Terry Browitt addressed the group, acknowledging the efforts of the GPEC committee for putting on a first-class function, both from a performance and technical presentation point of view. The GPEC committee consisted of Larry Koester - Conference Chair, Michelle Mikulec - Technical Program, Gwen Mathis - Division Administrator, Norman Lee - Promotion, Mike Montpetit - Audio/Visual, Dr. Subu Subramanian - Awards, Dr. Klementina Klait - Student Posters, and Dennis Denton - Division Councilor to SPE.



Norman Lee, Past Division Chair, presented a Clock to Larry Koester in Recognition of his Leadership.

Second day keynote speakers included Dr. Richard S. Stein - University of Massachusetts Amherst/National Plastics Museum, and Richard T. Gutowski - Senior Manager Organic Materials Engineering and Recycling, DaimlerChrysler Corporation.

**Student Posters:** At the Awards Luncheon, the Student Poster Award winners were recognized. (They received their award certificates and award checks at a dinner the night before.)

**Graduate Student Posters:**

- **1st Prize:** David Hokens, Michigan State University  
"Eco - Friendly Bio-Composites: Natural Fiber Reinforced Thermoplastic Bio-Polyester Composites"

- **2nd Prize:** LaKeya Belcher, Michigan State University  
"Development of Bio-Composites from Aligned Bio-Fiber and Bio-Based Epoxy Resin"

**Undergraduate Student Posters:**

- **1st Prize:** Supaporn Leungsuree, University of Wisconsin-Platteville  
"Investigation of the Flow Characteristic of Polystyrene Filled with Wood Particle as a Function of Heat and Pressure"

- **2nd Prize:** Sarah Reinolds, Matthew Heidecker, and Matthew Day,  
Pennsylvania State University Erie  
"Separation of Polyphenylene Ether from Additives for Recycling"

**Exhibitors:** The exhibits provided useful information on a broad variety of products and services. The exhibit area was especially lively during the Connections Reception. Thank you to all exhibitors and participants.

The first public display of DaimlerChrysler's CARE Car II was the centerpiece exhibit at GPEC. This exhibit consisted of two Jeep Grand Cherokees and 9 display stations. The objective of the exhibit include "End of Life Vehicle" analysis, evaluation of plastics recovery from automobile shredder residue (ASR), and demonstration of use of recycled plastics in automobiles.

**Plastics Environmental Stewardship Awards:** At the Awards Luncheon, Dr. Subu Subramanian presented "**Excellence in Plastics Impact on the Environment**" awards to four companies in recognition of their demonstrated environmental leadership and excellence, accomplished through a significant and noteworthy achievement activity or process during 2000/2001. The categories included Environmental Stewardship in the areas of Technology and Processes, and Environmental Stewardship in Products. The following four companies were selected from 35 outstanding nominations.

We congratulate the Environmental Stewardship Award winners: Sony Electronics Corporation, KTM Industries, Coca-Cola Company, and General Motors Corporation. The summary of each company's accomplishments follows:

## **Sony Electronics Corporation**

Sony Electronics Corporation has demonstrated their concern for the environment by using post-consumer recycled plastics in the manufacture of their TV sets.

Sony makes speaker boxes from post-consumer coat hangers, agricultural trays, and electrical wire spools. They have established the infrastructure to collect these items in the San Diego and Tijuana areas. The collected items are recycled and manufactured into high quality plastics to meet Sony specifications for manufacture of the TV speaker boxes. In addition, these recycled parts provide an economic savings to Sony.

Currently, Sony is diverting 6 million pounds per year from landfills into useful recycled products.

In recognition of such commitments to plastics recycling and environmental quality, the Environmental Division of the Society of Plastics Engineers presents this award in the product category, to Sony Electronics Corporation.



Dr. Subu Subramanian is presenting the award to Douglas Smith of Sony Electronics Corporation.

## KTM Industries:

KTM Industries is an emerging small company, which is involved with the development and manufacture of environmentally friendly, bio-based plastics for diverse industrial and consumer markets.

Kid Tech Tools, a subsidiary of KTM, is the developer of the biodegradable building blocks sold to educational, toy and crafts industries. Their products, such as Wet'n Set Magic Noodles made from starch products, can be found in over 1000 stores around the world.

In cooperation with Dow Chemicals and National Starch Corporation, KTM has recently developed starch-based, biodegradable foam called "Green Cell" for several packaging applications. "Green cell" can be substituted, in many cases, for applications traditionally using conventional foams based on fossil fuel based intermediates.

In recognition of their technical accomplishments and development of these bio-based polymer products from renewable resources, the Environmental Division of the Society of Plastics Engineers is pleased to present this award to KTM Industries.



Dr. Subu Subramanian is presenting the award to Tim Colonnese, President of KTM Industries.

## Coca-Cola North America (CCNA)

Responsible stewardship of the environment has become a priority for Coca-Cola Company. The company has demonstrated its commitment to this through tangible accomplishments such as:

- ?? In 2001, three out of four PET soft drink bottles made in North America contain 10 % recycled PET.
- ?? During 2001 CCNA spent over \$ 2 Billion to buy materials with recycle content.
- ?? Significant resource-reduction has been achieved by 40-50% weight reduction of their bottles.
- ?? During the current Olympic games, about 125,000 pounds of used PET soft drink bottles will be collected and later purified to be incorporated into new bottles.

Coca-Cola is actively promoting PET recycling by helping create the infrastructure, supporting research and development of new technologies, and seeking regulatory approvals. Coca-Cola works with bottlers, suppliers, communities and government agencies, towards promoting greater recycling.

In recognition of such commitment to plastics recycling the Environmental Division of the Society of Plastics Engineers presents this award for Environmental Stewardship to Coca-Cola North America CyclePET team.



Dr. Subu Subramanian is presenting the award to Stephanie Rowbotham, Director, Package Development and Commercialization of Coca-Cola North America.

## **General Motors Corporation:**

General Motors has instituted a philosophy of “Stewardship of the Environment” in the design and development of new products and processes. Concern for greater energy efficiencies and protection of the environment has contributed to efficient use of several recycled plastics, including recycled tires in some of GM vehicles.

For example, the current Trailblazer model will consume 17 million recycled rubber shoe soles and over 20,000 recycled PP bumpers to make water reflectors, in each model-year. Towards “designing for recyclability”, over 50 million pounds of molded parts are designed for easy recovery at the end of their life-time. Resource conservation is exemplified by elimination of over 150 wiring circuits, thereby eliminating 12,000 miles of copper wire and associated plastic insulation and associated connections, in one model-year

Reinforced nylon has been designed into a structural part in the bumper- fascia assembly, making it safer, lighter, with more parts integration and replacing the incumbent metal part.

In consideration of these and other activities towards enhancing the environmental quality, the Environmental Division of the Society of Plastics Engineers recognizes General Motors Corporation for Environmental Stewardship.



Dr. Subu Subramanian is presenting the award to Mr. Terry A. Cullum, Director – Global Design for the Environment and Cheryl Pilcher, Trailblazer Assistant Brand Manager.

**Super Session Panel Discussion:** The Conference ended with a lively discussion at a Super Session moderated by Dr. Theron Downes of Michigan State University. Panelists included Dr. Richard S. Stein - University of Massachusetts Amherst/National Plastics Museum, Dr. Garry Kenny - Magnetic Separation Systems (MSS), Barbara Halpin – American Plastics Council, Michele Raymond - Recycling Laws International, Richard T. Gutowski – DaimlerChrysler, and Donald Loepp – Plastics News. We thank the panelists for their contribution.

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For further information about the Environmental Stewardship Awards, GPEC Conference proceedings, and Sponsorship, please contact the following:

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