

1996 INTERNATIONAL ENVIRONMENTAL CONFERENCE AND EXHIBIT DEMONSTRATES CONTINUING HIGH INDUSTRY INTEREST IN ENVIRONMENTAL MATTERS

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INTEREST IN ENVIRONMENTAL ISSUES WITHIN THE FOREST products industry remains strong, as evidenced by the near-record attendance at the 1996 International Environmental Conference and Exhibit. About 1300 delegates came together from May 5-8 at the Walt Disney World Dolphin Hotel in Orlando, FL, to hear about and discuss the latest environmental concerns, challenges, and opportunities facing the industry. While 763 people were official attendees, about 530 representatives manned 135 exhibitor booths—also a near record—showcasing environmental products and services of interest to the industry.

The conference was co-sponsored by the Mexican Pulp and Paper Technical Association (ATCP) and the USDA Forest Service, with a theme “Partners in Global Stewardship.” In his opening remarks, Conference Chairman Bill Jernigan of Georgia-Pacific observed the increasingly global nature of the industry

and noted there were conference attendees from Mexico, Canada, Sweden, Finland, France, The Netherlands, and New Zealand. Throughout the world, the industry is focused on implementation of sustainable forestry and manufacturing practices and wants to be perceived as a good neighbor and responsible steward of natural resources.



Award winners (L-R) Eric Watkins, Jeffery Hilleke, and John Pinkerton en route to the Division Council's celebratory dinner held at the Living Seas in Epcot.

KEYNOTES ADDRESS STEWARDSHIP

In the first keynote address, J. Carter Fox, chairman, CEO, and president of Chesapeake Corp., spoke on forestry stewardship. He noted the critical importance of the forest resource and the need for its sustainability. He was enthusiastic about the recently implemented American Forest & Paper Association (AF&PA) Sustainable Forestry Initiative



TAPPI director Mike Wallace (L) unveils a painting commissioned by the Division for Jeffery Hilleke as part of his award.



The Division Council



Division Chair Anita Doepke



Keynote speakers (L-R) Jo Cooper, Pat Dunwoody, and J. Carter Fox at the opening session

as a means of demonstrating the industry's commitment to responsible timberland management. Without continuous documentation of performance and communication of the results to external audiences, he believes it will be very hard to change some of the negative public perceptions about industrial forestry practices. Without public support and trust, access to fiber will become even more difficult than it is today.

The second keynote address was delivered by Jo Cooper, vice president of regulatory affairs at the AF&PA. She offered her perspective on the evolving changes in environmental issues. The command-and-control federal regulatory approach is being gradually replaced by government-industry partnerships, voluntary programs designed to achieve results without rigid requirements, and more state-led initiatives. End-of-pipe treatment is being de-emphasized while in-process modifications and pollution prevention strategies are receiving more attention. Industry is taking a more proactive role in environmental stewardship and is looking more seriously at future environmental concerns. AF&PA's Sustainable Forestry Initiative, Environmental Safety and Health Principles, and *Agenda 2020* exemplify this evolution. For the 21st century, Cooper forecast that recycling, sustainable forestry, minimum-impact manufacturing facilities, and increased energy efficiency would be the most important issues for the forest products industry.

Also in the opening session, TAPPI director Mike Wallace of Mead Corp. extended a welcome on behalf of TAPPI President Jack E. Chinn and led a moment of silence for TAPPI's recently deceased executive director, William Cullison. TAPPI's Public Information Administrator Pat Dunwoody described some of the Association's public outreach programs, including *Paper Express* and

Operation Communication. *Earth Answers* are being developed by Environmental Division volunteers to enable TAPPI to respond, in nontechnical terms, to questions on environmental topics from members, students, and the general public.

AWARDS

The Division Awards were made by Anita Doepke, Division chairperson, to John Pinkerton and Jeffery Hilleke. Pinkerton received the Technical Award and Roy F. Weston Prize. He was recognized for his contributions in the field of air quality during his 18 years of employment at the National Council of the Paper Industry for Air and Stream Improvement (NCASI) and for serving as the Environmental Division's technical editor for *TAPPI JOURNAL* since 1990.

Hilleke earned the Leadership and Service Award. Hilleke, senior scientist for environmental technology at Champion International, has been active in TAPPI since 1981. He served as the 1995 Environmental Conference chairman and technical program chairman for the 1994 Conference. He is a past chairman of the Water Quality Committee.

The Division scholarship was awarded to Eric J. Watkins, a Ph.D. candidate at the Institute of Paper Science and Technology (IPST). Watkins' research involves closure of paper machine water cycles. Watkins is president of the TAPPI student chapter at IPST and earned a TAPPI Service Award in 1994 for his contributions to the TAPPI *Paper Express* program. Watkins has interned with Weyerhaeuser, Georgia-Pacific, and JSC/CCA.

The Russell O. Blosser Memorial Best Paper Awards were presented to the following individuals for papers presented at the 1995 Environmental Conference:

CONFERENCE REPORT

Water: Henrick Miller, Andre Schnell, Paula Steel, David Howard, and C. Roger Cook—*Performance comparison of lagoons and activated sludge systems for removal of toxic contaminants from bleached kraft mill waste waters*

Air: W.B. Bill Fischer—*Use of operating parameters for emission determinations*

Solid Waste (Tie): John Sparapany and Jenny Weibel—*Optimization of screw press dewatering using statistical analysis*; John Maxham—*Conversion of paper mill sludge into papermaking pulp and filler products*

General: Thomas Snellgrove—*Sustainability of forestry: why, what, how?*

AN EXPANSIVE TECHNICAL PROGRAM

After the opening session, the heart of the conference commenced. There were 45 technical sessions organized under the direction of John Lee, technical program chairman, and assisted by the Program Committee. This year's conference featured sessions on a wide array of topics including life-cycle analysis, ecolabels, environmental

auditing, ISO 14000, sustainable forestry, solid-wood environmental issues, emergency response and risk management plans, mill water closure, and measurement/analytical techniques. There were numerous sessions devoted to current issues related to air quality, water quality, and solid waste management.

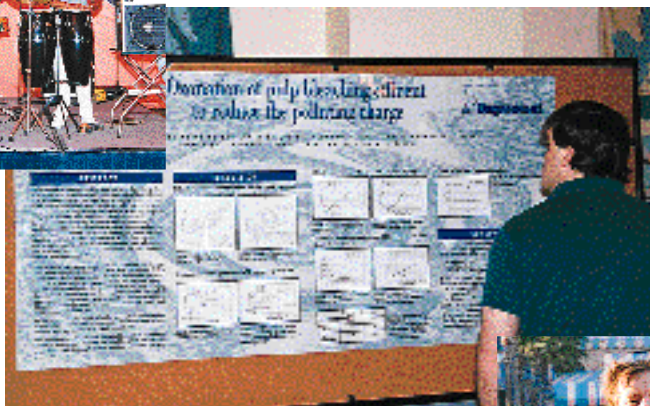
Yeske highlights NCASI's role

At the joint Air Quality, Water Quality, and Solid Waste Committee meeting, Ron Yeske, president of NCASI, described how the industry's environmental technical studies organization operates. He reviewed NCASI's mission, functions, structure, and technical studies program. There is increased emphasis on identifying longer-range environmental issues, which may become important to the industry in future years, and planning information-gathering activities which will enable the industry to effectively address these issues before they become a crisis. However, Yeske still foresaw a significant need for NCASI to develop technical information in response to EPA and other regulatory initiatives in the future, as well as to continue providing assistance to mills in meeting their environmental obligations.

EPA's Cluster Rule update

The final session of the conference was devoted to an update on the status of EPA's Cluster Rule, probably the most important environmental concern for chemical

The conference reception offered good food, an opportunity to network, and a lively band under a tent.



The conference included a poster session.



Exhibitors pumped a lot of enthusiasm into the conference.

NCASI's Doug Barton was first to reach the EnviroChase Finish Line.



The Cluster Rule panel included (L-R) John Lee, Rob Kaufmann, John Pinkerton, Steve Hudson, Keith Bentley, and Cathy Marshall.



pulp mills. Cathy Marshall of AF&PA provided an up-to-the-minute assessment of what revisions EPA was planning for the effluent guidelines, particularly for chemical wood pulp mills. Rob Kaufmann of AF&PA reviewed comments submitted in April 1996 by AF&PA on behalf of the industry on EPA's March 8, 1996, notice of intended changes to the Maximum Achievable Control Technology (MACT) emission regulations. John Pinkerton briefly reviewed NCASI's significant data-gathering efforts in support of industry responses to the proposed Cluster Rule.

The promulgation of the Cluster Rule is now anticipated to occur in October or November. EPA will publish a notice of expected changes to the Effluent guidelines portion of the Cluster Rule in early July. A 30-day comment period will follow the published notice.

A short question-and-answer session followed these presentations. The conference attendees were appreciative of this very timely update.

Joint committee update

Air Quality Committee Chairman Joe Gaines of Delta Environmental called the meeting to order on May 7 at the WDW Dolphin Hotel. Here are the highlights of the meeting:

- Environmental Division Chairman Anita Doecke encouraged members to complete and return the membership survey recently distributed by TAPPI.
- The TAPPI Board of Directors is evaluating the current organizational structure to see if changes are needed to meet member needs. This includes a review and realignment of the Association's mission statement. The group is also working on a strategic plan that will likely affect committees in future years.
- The Association is focusing on *Operation Communication*. Fact sheets are being developed by TAPPI for distribution to communities, the media, and to peers. Chairman Doecke asked for volunteers to act as editors and technical resources. Interested parties were advised to talk with committee officers.

ENVIROCHASERS RUN AROUND THE WORLD

Offering a choice between a 5-K race or a 1-mile walk, the Third Annual EnviroChase drew a healthy crowd. After some warm-up exercises, approximately 60 participants dashed off in comet-like fashion. The returning champions and their times are cited below:

Male champs

Douglas A. Barton, NCASI, Medford, MA, 16.37
Daniel S. Diehl, Stone Container Corp., Coshocton, OH, 17.36

Allan R. Elliott, PAPRICAN, Point Claire, PQ, Canada, 19.56

Female champs

Christine E. Foster, Nalco Chemical Co., Naperville, IL, 24.13, Laurel Murphy, 25.10

Organized by Scott Robertson of BE&K Environmental Co., the sponsors included Ahlstrom, Andritz, Davis & Floyd, Fluid Controls Inc., *Pulp & Paper/Pulp & Paper International Magazines*, Turbotak U.S.A. Inc., and Thompson Avant International.

All proceeds from EnviroChase support the TAPPI Division Scholarship fund.

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SHORT COURSES BENEFIT ATTENDEES

Three new short courses preceded the conference. They were: Prevention of Significant Deterioration (PSD) Permitting (two days), taught by Mark Johnson of Trinity Consultants and Tammy Wyles of Georgia-Pacific; ISO 14000, taught by David Peakes of Woodward Clyde; Solid Waste Management (one day), taught by Dan Diehl of Stone Container. Activated Sludge Plant Operations (two days), taught by John Lewyta of Hydrofuser Technologies Inc., followed the conference.

Conference delegates had the opportunity to attend one or more short courses, which was considered an added benefit for many non-U.S. travelers. The courses were well attended and received favorable reviews among the participants.

WRAPUP AND LOOKING AHEAD

Overall, the 1996 International Environmental Conference was well organized and well attended and provided an excellent opportunity for attendees to keep current on the latest environmental developments affecting the industry.

1997 and beyond

The 1997 Conference will be held at the Minneapolis (MN) Convention Center from May 4-7. Rob Hanley, technical program chairman for 1997, has already begun the planning process, and abstracts for technical papers will be accepted through October. Be sure to mark your calendar for this worthwhile event.

Future dates and locations of Environmental Conferences are: April 5-8, 1998, Vancouver, BC, Canada, and April 18-21, 1999, Nashville, TN.

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WALT DISNEY'S PARTNERSHIP WITH NATURE

PATRICIA M. PAUKSTA

The tour at this year's conference featured a behind-the-scenes look at the environmental infrastructure of the Walt Disney World (WDW) complex. Attracting a busload of camera-carrying, casually dressed delegates from the Environmental Conference, the three-hour tour included stops at Disney's waste treatment, recovery, compost, and power plants; the horticulture center and tree farm; and Fort Wilderness.

Disney's partnership with nature began many years ago (1964) when Walt Disney World was still on the drawing boards.

Hydrology studies, conservation, and land-use planning preceded the creation of 55 miles of canals, levees, and water control structures. For example, when the 200-acre Seven Seas Lagoon was dug, the 8-million ft³ of fill was used as a foundation for the Magic Kingdom. Only 20% of the Disney property is developed.

With over 8300 acres devoted to wetlands and conservation areas, WDW has developed a compatible relationship with a delicate ecosystem. This acreage is the haven of 33 alligators and 28 different bird species and the nesting spot for five bald eagles.

Water treatment

Much of the water activity on WDW property is monitored by a state-of-the-art Environmental Services Lab. Samples are taken as the water flows from north to south. This ensures that no degradation has occurred. Native plants are used to clean the lakes and canals.

The aquifer is considered the greatest natural resource in Florida. The water supply is pumped out of the aquifer from deep wells but to avoid sinkholes, treated waste water irrigates the property. Also, rapid infiltration basins are located on WDW's western boundary.

New hurricane drains, the 50-in. size, run to plastic-lined ditches where 100,000 gal/day of waste water is treated in an on-site treatment center. Storm water is run off through canals.

The waste water treatment plant runs 10 h/day. Water from the WDW resort is filtrated, aerated, chlorinated, and held in holding tanks for use in nonguest areas and irrigation. Walt Disney World has found that

chlorination is the cheapest way to purify the water, it doesn't hurt the plants, and it kills harmful bacteria. Solid waste is separated out while the remaining waste water is sent through secondary treatment. Approximately 2 million gal/day of the treated water

is used to irrigate thousands of landscaped areas.

Solid waste management

Sludge along with the 80 tons of food waste per week is mixed with grass clippings, yard waste, and horse manure and squeezed into tanks as sludge. The sludge is mixed with wood chips and insulated with screened material. After 21 days of circulating air and three days of 55°C temperatures, Disney's compost material is used to fertilize the beautiful flowers and shrubs at the resort and theme parks. About 40–50 cubic yards of finished compost is produced daily.

Disney character topiaries

That beautifully sculptured Snow White topiary you admire is a by-product of your visit. The solid wastes provide fertilization for 800 hanging baskets of flowers and 230 species of flowers on any given day. While

Sick topiaries are restored to good health before being returned to duty.

The tour included a visit to the water treatment plant.



visiting the topiary greenhouses, the group learned that it takes 8-10 years to grow topiaries using drip irrigation, which is a mixture of sand and waste sludge.

Integrated pest management (fighting bad bugs with good bugs) has resulted in a 50% reduction of pesticide use in the WDW theme parks.

Reclamation

The Materials Recovery Facility (MRF) is the main site for preparing the 35-plus tons of recyclable material collected daily. The overall recycling rate is 65%. The facility is set up similar to a Recycle America collection site. Glass, aluminum, paper, plastics, and scrap metals are collected. The glass is crushed on site and shipped out for use as road material. The facility operates 75 vertical balers. Materials are put into a baler and compressed, then shipped to end-user markets such as plastic and paper mills. Wood from Disney-MGM Studios TV and movie sets is either reused or supplied to a correctional institution that provides items for a homeless center.

The MRF handles 160 tons/day of different classes of recyclable materials. Monthly, the facility handles 550 tons of used corrugated boxes, which is sent to a paper mill. Over 1000 people are involved in the day-to-day reclamation activities that are conducted at WDW.

Some other interesting activities include recycling bar soap and a machine that rewraps those last few plies on toilet paper rolls for donation to homeless centers.



A roof protects these compost heaps from the rain.

The Materials Reclamation Facility recovers a mixed variety of recyclables.



This baler packages tons of sorted recovered papers.



The Energy Control Center for Walt Disney World resort and theme parks

Central energy plant

One of the activities at this location is to monitor weather (UNISYS), along with monitoring and controlling all the electrical and gas usage throughout WDW properties. Air condition for each building is monitored and adjusted here. Air conditioning is

accomplished through a steam turbine that uses a lithium bromide chiller. Sitting at the expansive control panel, a power broker buys and sells energy to keep WDW operating like the charmed environment its guests have come to expect.

Our last stop was Fort Wilderness Camp,

where the group petted horses and goats and then walked to the water's edge to learn more about the education and animal rehabilitation programs at Discovery Island Zoo. The zoo is recognized by the American Association of Zoological

Parks. The 11.5-acre zoo specializes in the preservation and care of many endangered species.

The tour was one of the highlights of the conference and provided a real life demonstration of the conference theme—partners in stewardship.

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