Environmental concerns draw crowd to conference in San Antonio

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While the production of pulp, paper, and wood products has recently been experiencing a downturn, there has been a marked upsurge in environmental regulatory activity affecting the forest products industry within the past year. This situation is in contrast to the economic slump of the early 1980s, a time when relatively few new major environmental initiatives were being contemplated. Today, at the same time as companies take measures to control expenses and manpower, the industry is facing an unprecedented array of new and expanded environmental programs which are being implemented by ever growing staffs of federal, state, and local government agencies.

The 1991 TAPPI Environmental Conference, held April 7–10 in San Antonio, Tex., provided an opportunity for industry representatives, regulatory agency personnel, suppliers, and consultants to learn about and discuss current environmental issues having an impact on the forest products industry. Despite the economic conditions, the conference was attended by more than 560 individuals. Ninety-seven exhibitors were represented at the trade fair, making it the largest ever held at an Environmental Conference. A breakfast for first-time conference attendees and new TAPPI members was also well attended.

The first keynote speaker, from the Environmental Protection Agency, truly set the tone for the entire conference. Hank Schilling, EPA Associate Assistant Administrator for Policy, Planning, and Evaluation, described EPA's new emphasis on pollution prevention and source reduction as the best methods for dealing with environmental issues for the next decade and beyond. He stressed the cost advantages of pollution prevention over end-of-pipe treatment, noting that environmental protection costs are expected to increase from the present 2% of the Gross National Product to 3% by the year 2000.

Schilling provided EPA's perspective of the environmental risks associated with pulp and paper manufacture that are of most concern, identifying consumption of fish containing 2,3,7,8-TCDD, inhalation of chloroform and other 'air toxics' emitted by mills, contamination of surface drinking water supplies, ingestion of foods grown on paper industry sludge-amended soils, and use of food contact papers containing trace amounts of chemicals. In the 1990s, he indicated EPA will be applying a mix of strategies to control or eliminate discharges from pulp and paper mills so that human health and the environment will be protected. EPA's general philosophy will be to go "up the pipe," with source reduction being the preferred regulatory approach.

Hank Schilling, EPA associate assistant administer for policy, planning, and evaluation, gives a keynote address at the 1991 Environmental Conference.

Schilling concluded his address by describing seven major EPA activities which are part of a targeted pulp and paper industry "regulatory cluster." These activities are development of regulations for (1) land application of paper mill sludges, (2) emissions of hazardous air pollutants from pulp and paper mills, (3) control of emissions from industry wastewater treatment systems, (4) effluent discharges, with special attention to chlorinated compounds, (5) water quality standards, particularly "toxics" and dioxin, (6) toxicity characteristics of industry sludges, and (7) landfilling of industry sludges.

In the next keynote address, Matthew Van Hook of the American Paper Institute discussed the pulp and paper industry's reaction to many of the EPA initiatives. He noted the industry feels pollution prevention concepts

"Paper Rap" teaches students more than paper basics

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Adults and children often draw conclusions from bits of information. Their image of the paper industry may be assembled from stories they've seen on the nightly news, articles in the local newspaper, and conversations with friends. What results may be a distorted or incomplete picture.

To help provide a better understanding of the paper industry's role in the community, Covey Quick and Mary Scherzinger, two teachers in St. Helens, Ore., worked with staff at Boise Cascade's St. Helens mill to develop a program for use from 1st through 12th grades. The lessons go beyond just teaching students how paper is made. They involve the students in activities that demonstrate various qualities of paper, demonstrate how paper products affect people's lives, and familiarize students with careers in the paper industry.

While certainly applicable to science courses, the supplementary "Paper Rap" lessons developed by Covey and Scherzinger can also be used to help teach language arts, social science, art, chemistry, math, industrial arts, home economics, and health. One of the lessons for elementary school children, for example, has the students write to employees at the mill to find out more about the jobs within the mill. The lesson helps the students develop writing and interviewing skills and teaches them about careers.

The lessons also help students develop critical thinking skills, notes Covey. Students are asked to explain why certain papers are best for certain needs. One section on papermaking technology poses the question, "If man can change technology, can technology change man?" Another section has students evaluate newspaper articles for inflammatory language.

More information on the lessons published by Quick and Scherzinger, who were keynote speakers at the 1991 TAPPI Environmental Conference, is available through Brightset Educational Materials, 255 South 4th, St. Helens, Ore. 97051. Telephone: (503) 397–2674. □

St. Helens, Ore., school teachers **Mary Scherzinger** (left) and **Covey Quick** (right) gave a keynote address at the 1991 TAPPI Environmental Conference on the "Paper Rap" curriculum they developed to help students learn more about the paper industry and develop critical thinking skills.

Oliver B. Burns Jr. (right), vice president and director of environmental activities for Westvaco, receives TAPPI's Environmental Division Technical Award during the 1991 Environmental Conference. **Bruce B. Ferguson**, vice president of Roy F. Weston, Inc., presents Burns with the Roy F. Weston Prize and a check for $1000.

Barry W. Crouse (right), TAPPI Board Member during the 1991 Environmental Conference, presents **Allan H. Mick**, environmental manager for Boise Cascade Corp. in St. Helens, Oreg., with an Environmental Leadership and Service Award.

deserve a close look and that process changes will need to be carefully considered. The industry supports EPA's initiative for companies to voluntarily reduce "toxic chemical" releases from manufacturing operations, he said. He then cited the solid progress made by the industry in reducing bleach plant dioxin formation as an excellent example of what can be achieved on a voluntary basis. On the other hand, Van Hook expressed concerns about the need for EPA to coordinate all of its new voluntary and regulatory initiatives with each other and with existing statutory mandates to avoid duplicative and unnecessary requirements.

Also at the opening session, conference attendees heard about an innovative environmental educational effort supported by the Boise Cascade Corp.'s bleached kraft mill in St. Helens, Ore. Allan Mick, mill environmental supervisor, described how the effort was initiated in response to letters received by the mill from local elementary school students raising questions about the environmental impacts of mill operations, especially bleaching. He then introduced Mary Scherzinger and Covey Quick, teachers in the St. Helens School District, who described the educational programs they developed for the school district. Informational materials were designed to educate students about the mill's operations and environmental impact. Overall, the program resulted in students gaining a factual understanding of the pulp and papermaking process with its associated benefits and drawbacks. This presentation on a positive proactive educational program was very well received.

Awards and honors

The Environmental Division's Award and Roy F. Weston Prize of $1000 were presented to Oliver B. "Bill" Burns Jr. of Westvaco Corp. Burns began his career in environmental protection in the 1950s as a wastewater treatment plant operator at Westvaco's Covington, Va., mill and steadily worked his way upward in the company to his current position as vice president for environmental affairs in the New York office. His selection for the award and prize recognized his many accomplishments in the environmental area for the company and his contributions to the industry's environmental programs.

The Division's Leadership and Service Award was presented to Mick in recognition for his work on air quality, wastewater treatment, process control, sludge management, and regulatory affairs relating to the pulp and paper industry. He was named to a term as Division chairman in 1985 and has chaired the Division's Air Quality Committee. Mick has a B.S. degree in chemical engineering from the University of Colorado. He worked for Weyerhaeuser, Georgia Pacific, and others before joining Boise Cascade in 1980.

Scholarship awards were presented to James McClain, of the University of Wisconsin-Stevens Points, and Jefferson Farr, of Oregon State University. Robin R. DeShong, recipient of the Professional Development Recognition Award, was also honored during the ceremony.

Russell O. Blosser Memorial Best Paper Awards were presented to Brian MacLean, Andre deVegt and Erik van Driel; Benjamin B. Stout; Dominique Lachenal, P. Joly and Michel Muguet; Kenneth P. Diehn and Barry Zuercher; and Russell E. Keenan, Alan H. Parsons, Richard J. Wenning, Ellen S. Ebert and Dennis J. Paustenbach.

Technical Program

Over the course of the three-day conference, there were 39 technical sessions. Topics ranged from the more tradi-

tional subjects of air quality, water quality, and solid-waste management to waste minimization, public awareness, risk assessment, closed cycle technologies, bleaching, wetlands, and wildlife issues. There were several papers devoted to environmental concerns associated with secondary fiber mills, which is an area of increasing interest.

As has been the case for the past few years, substantial attention focused on the environmental impact of chlorinated compounds resulting from chlorine-based pulp bleaching. These potential impacts are being studied in the United States, as well as in Canada, Sweden, Finland, Australia, and New Zealand. A number of papers examined potential technologies for minimizing the formation and discharge of chlorinated compounds from the bleach plant.

Solid Waste

Topics related to solid-waste disposal received significant attention in the technical sessions. One session addressed sludge dewatering equipment and its operation. Several papers dealt with the design, permitting, performance, and closure of various mill landfills. Other mill approaches to solid-waste management which were described included landspreading of deinking sludges, use of sludge in strip mine land reclamation, composting of mechanical pulp mill sludge, use of sludge and coal ash in cement production, and burning of sludges in fluidized bed combusters and boilers. One session was devoted to remediation case histories and the emerging use of bioremediation for treating contaminated soils. Potential risks from various disposal options for bleached pulp sludges were reviewed in other sessions.

In the air quality area, so-called "air toxics" was the major topic. Conference participants heard papers on the hazardous air pollutant requirements of the 1990 Clean Air Amendments, chloroform emissions from pulp bleaching operations, organic and metal compound emissions from wood-fired boilers in California, the Wisconsin "air toxics" program, and estimated risks associated with dioxin emitted by combustion sources.

Numerous subjects related to water quality were covered in the technical sessions. Aquatic community impacts were discussed in two sessions, with particular emphasis on questions about the significance of AOX as an indicator of biological significance. An EPA representative outlined the Effluent Guidelines review for the pulp and paper industry. Regulatory developments in Sweden, Finland, Australia, and New Zealand were described. Other sessions covered secondary treatment system design and performance, anaerobic treatment, computer control of wastewater treatment systems, color, and phosphorus control.

Although many of the sessions dealt with topics of wide concern and interest to attendees, some introduced new concepts and new perspectives for dealing with environmental issues.

Siting a landfill or sludge pond has become increasingly difficult as more and more restrictions have been enacted to protect wetlands and groundwater supplies. Environmental audits and a systematic approach can make the task easier. Consultants who've been through the process recommend documentation of all siting efforts and making sure the public and employees are aware and involved.

In siting a landfill, it's best to avoid the following:

- Designated wetlands
- Primary aquifers
- Environmentally sensitive areas
- Developed areas
- Permeable soils and bedrock.

Specific selection criteria will vary, but might also include availability, and accessibility.

Public awareness is an issue whenever a mill's activities may affect the environment or health of area residents. In other words, mills must continually communicate and deal with the public. Conflict can be reduced by involving the community as a partner in the planning and evaluation of mill activities or projects that may affect area residents—from the very beginning.

Much also can be accomplished when industry and environmental groups work together rather than siding against each other. For industry, the benefits can be good public and employee relations, tax deductions, and cooperation on siting efforts. For the environmental groups, the benefits include a heightened awareness of environmental concerns, potential donations of habitats, and protection of wildlife and habitats. Partnerships with established groups such as The Nature Conservancy, the Audubon Society, and the Sierra Club have worked out well. Trying to work with radical groups is more risky because such groups often have a specific objective and are less willing to compromise.

Overall, the opening session, the 39 technical sessions, and the exhibit provided conference attendees with an opportunity to become better informed about the environmental challenges facing the pulp and paper industry in the 1990s and to exchange information on how these challenges can be met. If the numbers of participants, papers presented, and exhibitors in this year's conference are a measure of the environmental activity level in the industry, it is clear the attention being given to environmental concerns is continuing to grow even during the present economic downturn. It seems obvious the high level of interest in the annual Environmental Conference will continue into 1992, when the conference will be held in Richmond, Va. □