

March-April 1996 NEWSLETTER

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Pencil and Paper

Well, here I am again, staring into the computer screen with an empty head...trying to think of something to write in this space. Invariably, Pencil and Paper is the last thing to go into the SWST Newsletter, even though it is on page one. I guess it is a bit like writing the executive summary of a business plan...or maybe the abstract to your winning research proposal...you write it AFTER you know what is inside. Don't worry, though; I don't see this little column as anything quite so grandiose.

I was thinking that I'd like to put a cartoon in here someplace. But, I promised (did I really??) Vicki that I would NOT revive the old "Crook, Bow, and Twist" section of the Newsletter (may it rest in peace). You old timers know what I am talking about. But, something along the line of the newspaper comic strip, "Dilbert" (currently popular in the U.S. among certain segments of the professional working population) might be appropriate. It has become so popular at my place of work that we practically have a "Dilbert" bulletin board. Naturally, we change a word or two to fit our situation. I like the attitude of Dilbert's sidekick, "Dogbert"...for instance, he boils down a proposal to something like, "Give us 3 million dollars so we can buy cool technology and pump up our resumes." Now, I know none of you out there would do such a thing, or even think it, right? Well, not really; after all, we do (and should) take our work seriously. But I find a little levity now and then doesn't hurt.

Have you made your plans to attend the SWST Annual Meeting? We're going to have a good one in Minneapolis, Minnesota, on June 23. I'm looking forward to getting back to my old stomping grounds (from my M.S. days at the "U"), seeing my friends, and learning new things through the technical presentations. Minnesota really is a good place to visit (and live). In fact, I just read the other day that it was recently ranked number 2 as the "most liveable" state (I won't mention which state was number one, but I think they grow a lot of corn there). I hope to see you in Minneapolis.

Ah, I see I've almost filled my space again with a rambling monologue. Shows what wonderful things can be accomplished at 10:30 p.m. I really need to get a life, don't you think?D.D.S

SOCIETY NEWS

Willits Appointed SWST Director Susan A. Willits, Team Leader for Ecologically Sustainable Production of Forest Products, USDA Forest Service Pacific Northwest Research Station, Portland, Oregon, has been appointed as a SWST Director by President Geza Ifju. Sue will serve out the term held by Dr. Elisabeth A. Wheeler, who recently stepped down as Director. The term runs through June, 1997. We welcome Sue to the SWST Board and look forward to her contributions!

SWST Board Meeting

The Board held its spring meeting on March 16 in San Diego, California. We'll try to bring you highlights of the meeting in an upcoming newsletter. In the meantime, if you have a burning question about what happened there, contact Vicki, any Board Member, or even little old me (Doug). All I can say is I want to go back to San Diego!.

REMINDERS

- Annual meeting: The 1996 SWST Annual Meeting is scheduled for June 23 at the Marriott City Center, Minneapolis, Minnesota. President-Elect Duane Lyon has assembled an impressive slate of speakers who will address the theme of "Current Trends & Critical Issues Affecting the Forest Products Industry." Mark your calendar and plan to attend.
- **Student Poster Compition** Applications for the SWST Student Poster Competition to be held at the Annual Meeting are due in the Madison Office on May 1. An application form along with the guidelines and procedures were published in the November/December 1995 issue of the Newsletter.
- Reviewers Needed: Wood and Fiber Science Editor Bob Youngs is always on the lookout for willing and able reviewers for the journal. Please let Bob know that you are available, and indicate your area of expertise. Contact: Dr. Robert L. Youngs Editor, Wood and Fiber Science Brooks Forest Products Center Dept of Wood Science & Forest Products Virginia Tech Blacksburg, VA 24061-0503 Phone 540-231-7673 Fax 540-231-8868 email ryoungs@vt.edu

The SWST Newsletter is published six times a year by the Society of Wood Science and Technology, One Gifford Pinchot Drive, Madison, WI 53705 USA. Phone 608-231-9347, FAX 608-231-9592 e-mail vicki@aldo.fpl.wisc.edu.

Web: http://wwwlfpl.forestry.lsu.edu/swst

SWST is a technical and professional organization for scientists and engineers working in academia, government, consulting, and the forest products industries and is dedicated to providing education and expertise regarding better ways to use and produce wood products. Items for the newsletter may be sent to Doug Stokke, SWST Newsletter Editor, USDA Forest Service, Forestry Sciences Lab, SIU-C, Carbondale, IL 62901-4630.

Phone: 618-453-2920 FAX 618-453-2911. Forest Service DG: D.Stokke:S23L01A

E-Mail: dstokke@siu.edu

Society of Wood Science and Technology

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Have you ever received an e-mail message from a colleague, ostensibly with a document attached...but, when you looked at the document, all you saw was a bunch of "computer garbage"? One of my colleagues in the great state of Missouri has some choice words for such occurrences. Since he is from the "Show Me" state, I think what he means is that email is worthless for transferring files until you show me otherwise. Ok, let's take a look at how you can send your files with (relative) ease and avoid the consternation of a screen full of garbage.



Connections

Our story begins with the SWST web site (http://wwwlfpl.forestry.lsu.edu/swst) and the newsletters found there. In an effort to improve the timeliness of posting the newsletter on the web, I wanted to electronically send them to **Mischa Krilov**, keeper of the site (**Rado Gazo**, who has taken the lead in putting together the SWST web site, is currently doing research in New Zealand). Ok, so I said to Mischa, "I'll send you the newsletter; I've got it in a WordPerfect 6.1 file." Mischa responded, "WP is good, just send me an encoded file." "Well, uh, ok," says I, "but I'm not entirely sure what you mean by an encoded file." Mischa, ever patient, replied that I should get myself a program called uucode or something like it, and furthermore, I could find such a program at any SimTel

mirror.....Ahem....

Well, not wishing to appear like a blithering idiot, I proceeded to snoop around the web a bit, and low and behold, a SimTel site, in which I found a program called "Wincode" (for Windows 3.1) free for the downloading. Wincode proved to be a very easy-to-use program "which converts 8-bit binary files (like my WP document) to 7-bit ASCII (text) files...This BINARY/ASCII conversion allows you to send and receive binary files via e-mail..." You might think, "I can save my file as an ASCII right in my word processing program...so why do I need to bother with this?" The problem is if you use your word processing program to convert your file, you lose the formatting and any graphics you may have included in the original document. The beauty of using a program which will properly encode the file is that all your formatting and graphics will remain intact once the file is decoded at its final destination. So, the recipient of your file also needs to have a program, such as Wincode, with which they can convert the encoded 7 bit file back to the original 8-bit file format.

To use Wincode, you also need the program PKZIP. Wincode will ZIP or UNZIP your files as needed during the encoding or decoding process by calling the PKZIP program. If all of this is somewhat Greek to you (assuming you can't read Greek), why not just consult your local computer jock. Most places seem to have at least one. But, if you'd prefer not to appear to be a blithering idiot to your peers, including your local computer guru, contact me and I'll try to help inasmuch as I'm able. But really, now, you can manage. After all, if I can blunder through, so can you! (Disclaimer: If I really botched up the terminology and procedure this time, I'm counting on you more computer-literate types to set me straight). - D.D.S.



Correspondent's Corner

Goodell Visits Sweden

Dr. Barry Goodell reports that his trip was a great success, due in part to the supplemental sponsorship provided by SWST. Here is his report:

"Dr. Goodell was at the Swedish University of Agricultural Sciences, Department of Forest Products for three months, conducting research and discussing Forest Products protection issues with host Dr. Geoffrey Daniel. Discussions were also held with students

and the many colleagues such as Professors Bjorn Henningson and Thomas Nilsson, interested in wood protection and wood deterioration issues. Barry also presented the SWST sponsored talk: 'Oxygen Radicals, Chelators, and Volcanoes: Their Effect on Wood'. The visit allowed Barry and colleagues to advance their work on mechanisms involved in the brown-rot degradation of wood and also allowed for useful discussion and comparison of European and American systems for the analyses and protection of wood from deterioration.

Goodell also took advantage of the visit by taking a 10 day train trip through northern Europe to visit colleagues and discuss research in Prague (Dr. Jindrich Volc, Institute of Microbiology, Czech Academy of Sciences), Vienna (Dr. Kurt Messner, Technische Universitat Wien and Dr. Joseph Bodner, Vsterreichisches Holzforschungsinstitut), Munich (Dr. Kenneth Czerwinski, Institut fuer Radiochemie, Technische Universitaet Muenchen), and Berlin (Dr. Ina Stephan and Dr. Dieter Rudolf, Bundesanstalt flr Materialforschung und - prufung).

Of course it was not all work during the three month stay. Goodell and his family were most impressed by the Swedish hospitality and everything from holiday Smorgasbord feasts, to travel into the countryside. Visits to

homes of newly- made friends was always a treat. The kids especially liked the Swedish school system, the many places that towns maintained for sledding and skating (even to the point of plowing rivers for skating, and setting up rope tows and stadium lighting for sledding hills!!). All in all, it was a great trip from both a scholarly standpoint as well as an 'international learning' experience." - Barry Goodell

SWST Welcomes New Members (Sept. 1995-March 1996)

James M. Alter, State College, PA Cesar Q. Bautista, Diboll, TX Brian H. Bond, Blacksburg, VA Steven W. Bukowski, Univ. Park, PA John Demko, Jr., Mountain Top, PA David B. DeVallance, Ridgeway, PA Laura Ewing, Mississauga, Ontario, Canada Kuihau Fan, Vancouver, B.C., Canada Jilkovic P. Jovan, Belgrade University, Yugoslavia Bradley W. Olson, Minneapolis, MN Halil Turgut Sahin, Madison, WI David W. Smith, Jefferson, IA John L. Smith, Ames, IA Shigehiko Suzuki, Univ. of British Columbia, Canada Ackah Toffey, Blacksburg, VA Hwanmyeong Yeo, Syracuse, NY



1996 AFG CONFERENCE: FARM FORESTRY AND PLANTATIONS - INVESTING IN **FUTURE WOOD SUPPLY,**

Mount Gambier, South Australia 9 - 12 September 1996. This conference will cover a variety of topics, ranging from tree plantation management to timber quality to international markets. It is aimed at producers, particularly farmers. There will be a preconference tour, commencing in Melbourne on Sunday 8 September and finishing in Mount Gambier on Monday afternoon 9 September, traveling via the Otway Ranges and visiting Farm Forestry sites. Post conference tour, in Mount Gambier on Friday 13 September. This is a processing industry tour of sawmills, pulpmills and other conversion plants in the region.

Information Please

Mount Gambier is the centre of Australia's most developed softwood forestry region, the Green Triangle Region. The Green Triangle Region covers both sides of the South Australian/Victorian border and includes not only large tracts of pine plantations, and more recently eucalypt plantations but also the world renowned Coonawarra wine growing district.

For registration information, contact: AFG Conference 1996; c/o Katherine Lanigan; PO Box 899; Mount Gambier SA 5290. For further details of the meeting, contact: David W. Sheriff; Plantation Forest Research Centre; Division of Forestry & Forest Products; CSIRO; P.O. Box 946; Mount Gambier SA 5290; Australia; International Ph +61 87 238 212; International Fax +61 87 231 387; email david.sheriff@mtg.for.csiro.au

The Chemistry and Processing of Wood and Plant Fibrous Materials, edited by J.F. Kennedy, G.O Phillips & P.A. Williams. April 1996. 448 pages, \$225.00(+\$27.00 p&p). ISBN 1 85573 305 6.

This book arises from the 1994 International Cellucon Conference held at the University of Wales, UK. It provides up-to-date, state of the art research and information on the interdisciplinary resource value of wood and plant related materials. The book covers the production, management and changing patterns of global wood and fibre resources, focusing on physical and chemical processing and new biochemical methods for treating wood.

To order, contact; Woodhead Publishing Limited; Abington Hall; Abington, Cambridge, CB1 6AH; England. Telephone 44 1223 891358 or Fax 44 1223 893694 or email woodhead@dial.pipex.com

The Sustainable Construction Materials Project Phase III Reports are now available. Analysis of the relative environmental impacts of various building materials has been extended by the alliance of private, public and university researchers organized by Forintek Canada and supported by Natural Resources Canada. While Phase II concentrated on compiling life-cycle inventory data on materials, much of Phase III has been dedicated to impact analysis measures and methods.

The ultimate project objective is to develop a systems model that will allow building designers, researchers and policy analysts to readily assess the relative life cycle environmental impacts of using concrete, steel and wood building materials in low-rise structural applications.

Phase III reports deal with:

- Environmental effects of producing steel building products with mini-mills. Further assessment of demolition and disposal issues for structural building materials.
- A survey of experts to develop measures of relative ecological carrying capacity effects of extracting resources.
- The development of indices to combine atmospheric emission and liquid effluent data in terms of greenhouse gas and toxicity criteria.
- A comparative analysis of initial and recurring embodied energy of operational energy for a three story generic office building.

The Phase III summary report provides an overview of each of the other five Phase III reports and serves as a useful roadmap to the complete set. For ordering information please contact Phyllis Fraser at Forintek's Western Laboratory in Vancouver, B.C., Canada FAX: 604-222-5690 and Email phyllis@van.forintek.ca. Please include your FAX number.

Announcing **BRANCHING OUT** - an environmental education curriculum aimed toward middle-schoolers. 14 easy-to use lessons cover the following topics: wildlife, forestry, non source pollution, wetlands, recreation planning, and school yard stewardship. The URL is:

http://www.ces.ncsu.edu/nreos/forest/steward/pdf/brantoc.html

BRANCHING OUT was funded by the North Carolina Forest Stewardship Program, a cooperative program to encourage the voluntary management of private forest. Landowners are provided assistance to manage their total forest resources according to their objectives. Target resource areas include: Timber, wildlife, soil and water, recreation, and natural beauty. The North Carolina Forest Stewardship Homepage is located at URL: http://www.ces.ncsu.edu/nreos/forest/steward/steward.html

If you have any questions or comments please respond to the address above or online to the webmasters listed on the N.C Forest Stewardship Homepage. Or comment to:

mmegalos@wolf.ces.ncsu.edu

On Being a Scientist: Responsible Conduct in Research, second edition. Committee on Science, Engineering, and Public Policy. National Academy of Sciences, National Academy Press, Washington, D.C. 1995. Price: 1 for \$5.00, 2-9 for \$4.00 each, and 10 or more, \$2.50 each.

This booklet is intended primarily for graduate students and beginning researchers. It contains discussions and hypothetical situations on areas such as values in science, conflicts of interest, publication and openness, allocation of credit, authorship practices, and ethical standards. It appears suitable for use in a graduate research methods class.



Coming Events

CIFAC '96: The Third International Symposium on Computers in Furniture and Cabinet Manufacturing, May 7-8, 1996, Radisson Hotel, High Point, North Carolina. Sponsored by the Wood Machining Institute and the International Union of Forestry Research Organizations.

The symposium will include presentations on a variety of important innovations, such as use of computers in process planning and control, application of machine vision for optimizing cutting of boards and panels; computer-aided design and manufacturing; computer-integrated manufacturing; real-time production monitoring; and use of computer-based simulation and plant layout models. In addition to informative presentations, the symposium will feature table-top

exhibits. These exhibits will be up for the duration of the symposium, so participants will have ample opportunity to familiarize themselves with some of the most advanced computer software and equipment available from leading suppliers.

Form more information, contact: R. Szymani, Director; Wood Machining Institute; P.O. Box 476; Berkeley, CA 94701; ph# 510-943-5240; fax 510-945-0947.

As Chair of the Wood and Wood-Based Composites Subdivision of the Society for Experimental Mechanics (SEM), Audrey Zink would like to extend an invitation to those readers interested in the physical and mechanical properties of wood & wood-based composites to attend the annual meeting of this Subdivision on MONDAY, JUNE 10, 1996, in conjunction with the VII International Congress on Experimental Mechanics to be held June 10-13, 1996, at the Sheraton Music City Hotel, Nashville, Tennessee.

In addition to the subdivision general meeting, we are sponsoring the following technical sessions: Tuesday afternoon, June 11, 1996: Experimental Mechanics of Wood & Wood-based Composites: A.G. Zink, VPI & SU, Chair, D. Adams, Iowa State Univ., Cochair. *Instrumentations and experimental techniques for evaluating long-term engineering performance of wood-base composites, R.C. Tang, et al., Auburn University. *Measurement of mechanical properties of knots in lumber, L. Luo & J. Wang, Mich. Tech. Univ. *Strain measurement on wood using extensometers, clip gages, and electrical resistance strain gages, J.R. Loferski, VPI & SU. *Physical and mechanical properties of individual wood fibers, L. Groom, USDA Forest Service. *Density Determination of a wood particle mat during consolidation using nuclear technology, P. Winistorfer et al., Univ of Tennessee. *Dynamic model for analysis of periodic circular wood cutting process stability, B. Bucar, University of Ljubljana (Slovenia).

Wednesday morning, June 12, 1996: Time Dependent Behavior in Wood & Wood-based Composites: J.Z. Wang, Mich. Tech. Univ, Chair, M.P. Wolcott, WSU, Cochair. *Viscoelastic behavior of wood during composite processing, M.Wolcott, WSU Time dependent structural behavior of wood composite panels: Effect of environmental conditions, R.C. Tang et al., Auburn University. *Development of tension and compression creep models for wood using the time-temperature superposition principle, J.R. Loferski et al., VPI &SU. *Time-dependent strength of wood subjected to several loading conditions, R. Ross, et al., USDA FS Forest Products Lab. *Duration of load effect in timber joints, J.W.G. van de Kuilen, Delft University of Technology (The Netherlands). *Development and assessment of soybean-based adhesive/wood and agrofiber composites, D. Adams, et al., Iowa State Univ.

For more information, please contact **Audrey G. Zink**, phone 540/231-8820 or email agzink@vt.edu

First Notice and Call for Papers for the **Second International Wood Biotechnology Symposium** to be held in Canberra, Australia, March 10-12, 1997

The first International Wood Biotechnology Symposium was held in Tokyo in August 1994, with major input and support from the large Japanese paper company, Nippon Paper Industries Co. Ltd.. The first IWBS meeting was open to a limited number of researchers, but its success quickly prompted planning for the next symposium and the intent now is to "re-visit" this expanding technical area about once every three years.

The Second IWBS will be hosted by the Co-operative Research Centre for Plant Science located on the campus of the Australian National University (ANU) in Canberra. The Plant Science Centre is directly supported by staff from the ANU Research School of Biological Sciences and the Division of Plant Industry within Australia's largest research organization, CSIRO. Dr Jim Peacock, head of this Division, will be the Symposium Chairman.

The second IWBS will have industry support from North Forest Products, the company which has established Australia's largest eucalypt plantation estate and which conducts advanced research through North Eucalypt Technologies (NET), located at Ridgley in Australia's' island state of Tasmania. NET already sponsors research at the Plant Science Centre and at the Division of Plant Industry. Nippon Paper Industries, through Dr Kunio Hata, has given its support to the arrangements for this second IWBS.

Three themes have been chosen: A) Advances in biotechnology techniques B) Application of biotechnology to wood C) Regulation of wood biotechnology (trials and outcomes)

This first notice is also a call for papers. Anyone wishing to present a paper is required to submit a title by July 31, 1996; and indicate which theme (A, B or C) that the paper will develop. A 250 word abstract will then need to be submitted by October 31, 1996. The language at the symposium will be English.

Titles and abstracts (and any queries about the second IWBS) are to be forwarded by mail to: Second IWBS; Attn: Mr A. Jamieson; P.O Box 63; RIDGLEY, Tas. 7321; AUSTRALIA; or by fax: Second IWBS; Attn: Mr A. Jamieson; Fax: 61-04-343400; or by Internet; Allan.G.Jamieson@north.com.au; Subject: Second IWBS

First Announcement: Industrial Design, Architecture and Wood Rheology, Bordeaux, France, February 1997.

Objectives: Wood Rheology in France is a horizontal science dealing with the mechanical behaviour of wood and wood based materials in various environments (temperature, relative humidity, loads...). The meeting that will take place in Bordeaux in February 1997 will stimulate the interest of designers and architects in research or technological programs dealing with the rheology of this material.. Content: The meeting will be composed of a 2-day conference during which relevant aspects of rheology, architecture and design will be presented by invited speakers having an established reputation in this field, and 4 technical meetings on specific topics proposed by industrial sponsors (building with glulam, outdoor joinery, MDF, etc.). A Proceedings will be published.

Further information can be found at the following Web site: http://lrbb3.pierroton.inra.fr

If you wish to be included in the mailing list for complete information please contact: Eric CUVILLIER; IUT "A"; Departement Genie Civil; FAX: (33) 56-84-58-79; E-mail: cuvillier@minuit.iuta.u-bordeaux.fr OR Patrick CASTERA FAX: (33) 56-68-07-13 e-mail castera@lrbb3.pierroton.inra.fr

Issues in World Forestry and Forest Products, Center for European Studies and Architecture (CESA) at Riva San Vitale, Switzerland, and appropriate sites in the region, July 8-August 7, 1996.

Purpose: To increase knowledge of global forest resources, products, and related issues is a major requirement for today's forest resource managers and forest product specialists. The program is designed to expose students to a broad array of interdependent and international influences on the management of the world's forests and wood products sector. This course will enhance students' understanding of the role forest industries play in world society, environment and the economy. It will also feature current issues such as maintenance of resources and products.

Daily Activities: The first three weeks will be taught at CESA and approximately one week of travel will follow. The CESA phase will include lecture and discussion in the mornings, field trips and group projects during the afternoons, and evening discussions and guest speakers. The travel phase will include sites appropriate to the subject of the forestry and wood products.

Cost: The estimated total for this course is \$3,500, plus reduced Virginia Tech summer school tuition.

Contact for information on the course: A.L. ("Tom") Hammett; Dept. of Wood Science and Forest Products; Virginia Tech; phone: (540) 231-2716; Internet: himal@vt.edu

1996 AFG CONFERENCE: FARM FORESTRY AND PLANTATIONS - INVESTING IN FUTURE WOOD SUPPLY, Mount Gambier, South Australia 9 - 12 September 1996. This conference will cover a variety of topics, ranging from tree plantation management to timber quality to international markets. It is aimed at producers, particularly farmers. There will be a preconference tour, commencing in Melbourne on Sunday 8 September and finishing in Mount Gambier on Monday afternoon 9 September, traveling via the Otway Ranges and visiting Farm Forestry sites. Post conference tour, in Mount Gambier on Friday 13 September. This is a processing industry tour of sawmills, pulpmills and other conversion plants in the region. Mount Gambier is the centre of Australia's most developed softwood forestry region, the Green Triangle Region. The Green Triangle Region covers both sides of the South Australian/Victorian border and includes not only large tracts of pine plantations, and more recently eucalypt plantations but also the world renowned Coonawarra wine growing district. For registration information, contact: AFG Conference 1996; c/o Katherine Lanigan; PO Box 899;

Mount Gambier SA 5290. For further details of the meeting, contact: David W. Sheriff; Plantation Forest Research Centre; Division of Forestry & Forest Products; CSIRO; P.O. Box 946; Mount Gambier SA 5290; Australia: International Ph +61 87 238 212: International Fax +61 87 231 387; email david.sheriff@mtg.for.csiro.au The Chemistry and Processing of Wood and Plant Fibrous Materials, edited by J.F. Kennedy, G.O Phillips & P.A. Williams. April 1996. 448 pages, \$225.00(+\$27.00 p&p). ISBN 1 85573 305 6. This book arises from the 1994 International Cellucon Conference held at the University of Wales, UK. It provides up-to-date, state of the art research and information on the interdisciplinary resource value of wood and plant related materials. The book covers the production, management and changing patterns of global wood and fibre resources, focusing on physical and chemical processing and new biochemical methods for treating wood. To order, contact; Woodhead Publishing Limited; Abington Hall; Abington, Cambridge, CB1 6AH; England. Telephone 44 1223 891358 or Fax 44 1223 893694 or email woodhead@dial.pipex.com The Sustainable Construction Materials Project Phase III Reports are now available. Analysis of the relative environmental impacts of various building materials has been extended by the alliance of private, public and university researchers organized by Forintek Canada and supported by Natural Resources Canada. While Phase II concentrated on compiling life-cycle inventory data on materials, much of Phase III has been dedicated to impact analysis measures and methods. The ultimate project objective is to develop a systems model that will allow building designers, researchers and policy analysts to readily assess the relative life cycle environmental impacts of using concrete, steel and wood building materials in low-rise structural applications. Phase III reports deal with: * Environmental effects of producing steel building products with mini-mills. Further assessment of demolition and disposal issues for structural building materials. * A survey of experts to develop measures of relative ecological carrying capacity effects of extracting resources. * The development of indices to combine atmospheric emission and liquid effluent data in terms of greenhouse gas and toxicity criteria. * A comparative analysis of initial and recurring embodied energy of operational energy for a three story generic office building. The Phase III summary report provides an overview of each of the other five Phase III reports and serves as a useful roadmap to the complete set. For ordering information please contact Phyllis Fraser at Forintek's Western Laboratory in Vancouver, B.C., Canada FAX: 604-222-5690 and Email phyllis@van.forintek.ca. Please include your FAX number. Announcing BRANCHING OUT - an environmental education curriculum aimed toward middle-schoolers. 14 easy-to use lessons cover the following topics: wildlife, forestry, non source pollution, wetlands, recreation planning, and school yard stewardship. The URL is:

http://www.ces.ncsu.edu/nreos/forest/steward/pdf/brantoc.html BRANCHING OUT was funded by the North Carolina Forest Stewardship Program, a cooperative program to encourage the voluntary management of private forest. Landowners are provided assistance to manage their total forest resources according to their objectives. Target resource areas include: Timber, wildlife, soil and water, recreation, and natural beauty. The North Carolina Forest Stewardship Homepage is located at URL:

http://www.ces.ncsu.edu/nreos/forest/steward/steward.html If you have any questions or comments please respond to the address above or online to the webmasters listed on the N.C Forest Stewardship Homepage. Or comment to: mmegalos@wolf.ces.ncsu.edu On Being a Scientist: Responsible Conduct in Research, second edition. Committee on Science, Engineering, and Public Policy. National Academy of Sciences, National Academy Press, Washington, D.C. 1995. Price: 1 for \$5.00, 2-9 for \$4.00 each, and 10 or more, \$2.50 each. This booklet is intended primarily for graduate students and beginning researchers. It contains discussions and hypothetical situations on areas such as values in science, conflicts of interest, publication and openness, allocation of credit, authorship practices, and ethical standards. It appears suitable for use in a graduate research methods class.

The UNIVERSITY OF KENTUCKY has two positions currently open:

1. NETWORK COORDINATOR

Contract laborer needed to identify, assess and organize manufacturing networks among secondary wood product manufacturers. Desired qualities include: Entrepreneurial experience, business planning, estimating, job costing, proposal and contract preparation, project scheduling and management, production techniques and training, computer literacy, communication and interpersonal skills, customer service and



Positions Available

problem solving abilities. Prefer Bachelors degree in Business or Wood technology and /or appropriate work experience.

. RECRUITER/PLACEMENT COORDINATOR

Contract laborer needed to promote career opportunities in the secondary wood industry. While serving as a representative of Kentucky's wood industry education and training initiatives, the successful candidate will work closely with prospective students and parents, high school guidance counselors, post-secondary admissions personnel, as well as employers throughout the state. In addition to coordinating the development of promotional materials and marketing strategies for the integrated program of studies, extensive travel will be required. Desired qualities include: Outgoing, energetic personality, attention to detail, excellent communication and interpersonal skills, computer literacy, dependable transportation along

with a comprehensive understanding of the secondary wood industry.

For either of these positions, send letter of application, resume and three reference names along with phone numbers to: KWPCC, 501 Darby Creek Road, Unit 35, Lexington, Ky. 40509. Applications must be received by May 1, 1996.

THE KENTUCKY WOOD COMPETITIVE CORPORATION IS AN EQUAL OPPORTUNITY EMPLOYER UNIVERSITY OF MAINE-ORONO

Graduate Research Assistantships in Pulp/Bleaching Biotechnology

Assistantships (approximately \$1000/month plus tuition waver) for graduate students with a background in biochemistry, chemistry, microbiology, or similar fields are available at both M.S. and Ph.D. levels for work in the field of Biotechnology in the pulping and bleaching fields. The research involves the characterization and utilization of metabolites from wood degrading microorganisms for the oxidation of lignocellulosic components of wood and pulp. Research projects range from studies for determination of growth parameters for bioproduction of metabolites of interest, to the use of magnetic resonance and HPLC instrumentation for characterization of the metabolites, to the use of state-of-the-art instrumentation for pulping and bleaching research.

The ideal candidates will have a good understanding of biotechnological processing including background in chemistry, biochemistry, and microbiology. Successful candidates will take further training in these areas as well as advance their knowledge in chemical engineering/ pulp and paper studies. Background in wood science, chemical engineering, or pulping/bleaching technology is not essential but may be desirable. The candidate must also be a U.S. citizen or permanent resident to be eligible for these awards.

The University of Maine is located 45 minutes from Acadia National Park and the beautiful Maine coast, 90 minutes from Mount Katadin (the northern terminus of the Appalachian trail), 2 hours from Sugarloaf and Sunday River ski complexes, and 3 hours and 45 minutes from Boston. Inquiries may be directed to: Dr. Barry Goodell, Professor and Head, Wood Science and Technology, Forest Products Laboratory, 5755 Nutting Hall, University of Maine, Orono, Maine, 04469-5755. Phone (207) 581-2888. Fax (207) 581-2858. E-mail Goodell@voyager.umeres.maine.edu or Dr. Douglas Ruthven, Chairperson and Professor of Chemical Engineering, 5737 Jenness Hall, University of Maine, Orono, Maine, 04469-5737. Phone (207)581-2283. Fax (207) 581-2323. E-mail Johndro@maine.maine.edu

FELLOWSHIP OPPORTUNITY FOR GRADUATE STUDY

Virginia Tech is currently conducting a national search for a highly qualified student who wishes to pursue the doctoral degree and study in the area of Wood-Based Composites Engineering. Applications are being accepted for a 3-year fellowship, funded at \$17,000 per year plus tuition paid. This is a prestigious award granted by the United States Department of Agriculture as part of the National Needs Graduate Fellowship Program. The fellow will pursue a Ph.D. in the Department of Wood Science and Forest Products at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. The Department is internationally recognized as a leader in graduate education and research in Wood Science. The Department has excellent research facilities, including a wood-based composites pilot plant, materials testing laboratory, microtechniques laboratory, and thermal analysis laboratory. The Fellowship Program is for study in fundamental aspects of wood-based composites engineering, with specialization in: adhesion science, materials science, structural engineering, or process

engineering. A program of study will include interdisciplinary course work in: wood science, civil engineering, mechanical engineering, chemistry, materials science, or chemical engineering, to supplement the student's chosen research topic.

Qualified students must be U.S. citizens and possess a strong technical background in the basic sciences and engineering, with appropriate Bachelors and Masters degrees. The academic background of the applicant should include study in one or more of the following disciplines: wood science, physical chemistry, engineering, or materials science. Applicants must have a strong interest in utilization of natural resources, polymer materials, materials processing, or building construction.

All completed applications will be processed when received, with a decision to be made when a suitable candidate is identified. The recipient will be expected to begin a graduate program in August, 1996 or January, 1997. Send resume, transcripts, and names of three references (include address and telephone numbers) to: Dr. Joseph Loferski, Project Director; Department of Wood Science and Forest Products; Brooks Forest Products Center; Virginia Tech; Blacksburg, Virginia 24061-0503. For further information call: 540/231-4405 or email: jloferski@vt.edu.

A MAJOR MANUFACTURER and WHOLESALE DISTRIBUTOR of building products, industrial wood products, pulp, paper, packaging, paperboard, tissue and related chemicals has two openings as follows:

- 1. Buyer, Commodity Wood Products Business Unit, Atlanta, GA, and Denver, CO. Position reports to the Commodity Lumber Sales Manager. The incumbent will participate as part of a buying team to negotiate and purchase commodity lumber from both company mills and outside suppliers. Utilizes knowledge of vendor manufacturing capabilities, supply and demand cycles, key quality components, and product design to make buying decisions. Continually informs management of market conditions and trends; helps assess risks of speculative purchases. Establishes pricing guidelines for the sales organization, manages inventories, and resolves customer claims and complaints.
- 2. Trader, Commodity Lumber, Atlanta and Denver. Position reports to Commodity Lumber Sales Manager. Proactively sells commodity lumber to targeted accounts in an assigned geography. Handles large orders from warehouse, reload and direct sources on both a back-to-back as well as a long position basis. Assists in handling large inquiries/orders for accounts in assigned territories. Shares local market intelligence (e.g., pricing/inventories/positions, etc.) with buyers as well as with the Commodity Lumber Manager. Maintains open dialogue with outside sales force relative to commodity market activity. Acts as primary customer contact for claims/problem resolution, and directs claim/problems through proper channels. This position is located in a Sales Center.

For further information on these positions, contact: Randy Hatmaker; Recruiting Solutions; 2195 College Ave.; Lincoln Park, MI 48146-1367. Phone 313-388-2781, fax 313-388-2916.

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For further information, please contact Vicki Herian at <u>vicki@swst.org</u>