RYSZARD (RICHARD) SZYMANI, PH.D. Director and Technical Consultant Wood Machining Institute (WMI) PO Box 476, Berkeley, CA 94701 (702 Tampico, Walnut Creek, CA 94598) Tel/Fax: 925-943-5240; Cell: 925-360-4201 www.woodmachining.com

April 5, 2016

SPECIALITIES

Over 37 years of experience in industrial and home accidents investigation with woodworking equipment and cutting tools. These include:

- Safety and hazard analysis in woodworking and the wood industry: design, manufacture, use and maintenance of wood processing machinery; guarding, warnings, training, codes, standards, customs and practices.
- **Personal injury with portable power saws, table saws and chain saws** and machinery related accidents including gang saws, band saws, planing and molding machines, wood chippers and conveyers.
- Assistance with Patent applications and infringements.
- Attending international trade shows and conferences for the wood industry and reporting on safety issues in the WMI international newsletter, *Wood Machining News*.
- Made presentations on safety issues at annual WMI Workshops on Design, Operation and Maintenance of Saws and Knives; WMI workshops on woodmachining and cutting tools and at the international conferences on sawing technology (SawTech 2003 and 2005).

Since 1978 has consulted in over 300 cases and testified in courts of Arizona, California, Florida and New York.

CREDENTIALS

- **Ph.D.** -- Wood Science and Technology, University of California, Berkeley, California, 1977. Dissertation on "Theoretical and Experimental Analysis of Circular Saw Tensioning"
- M.S. -- Engineering Science/Mechanical Engineering, University of California, Berkeley, California, 1974 Masters report on "Circular Saw Stiffness as a Measure of Tensioning"
- M.S. -- Wood Science, Faculty of Forestry, University of British Columbia, Vancouver, Canada, 1970 Masters Thesis on "A Study of Corrugated Board Cutting by High Velocity Liquid Jet"

Teaching Credentials -- College of Agriculture, Poznan, Poland, 1963/1964

M. Eng. -- Wood Technology, College of Agriculture, Poznan, Poland, 1963

Diploma from Technical High School for the Wood Industry, 1958

The requirements for graduation from Technical High School and College of Agriculture required summer work every year in sawmills, furniture plants, parquet flooring plants, veneer and plywood production factories and work in a shipyard.

PROFESSIONAL HISTORY

Founder/Director and Technical Consultant, Wood Machining Institute, an international information center for the wood industry and machinery and cutting tools manufacturers, Berkeley, California, 1984-Present.

Organized biannual International conferences on Scanning Technology and Process Optimization in the Wood Industry and on Sawing Technology (1985-2007), International Wood Machining Seminars (1983 and 2001) as well as **annual Workshops on Design**, **Operation and Maintenance of Circular and Band Saws and Workshops on Wood Machining and Cutting Tools**. Consulting on sawing technology and safety issues in the wood industry.

Adjunct Professor, Department of Wood and Paper Science, NC State University, Raleigh, NC, advisor to tooling research program, 1991-2008.

Research Scientist/Technical Consultant, California Cedar Products Company, Stockton, California, doing research on the wear of cutting tools, reduction of kerf losses during sawing and consulting in the general area of wood machining, including machine guarding and worker safety, 1983-1998.

Wood Processing Specialist, UC Berkeley, Cooperative Extension and the Forest Products Laboratory, Richmond, California - provided technical assistance to the wood industry in California and initiated short courses on circular and band saws, with international participation, 1979-1983.

Assistant Professor, Forest Products Department, Oregon State University, Corvallis, Oregon - taught courses on the manufacture of lumber, veneer and chips, and associated equipment; developed equipment for evaluation of circular saw tensioning; began investigating accidents in sawmills - 1977-1979

Assistant Specialist, UC Forest Products Laboratory, Richmond, California, conducted research on veneer peeling, pre-stressing (tensioning) of circular saws and saw stiffness and stability analysis, 1970-1977.

Research Assistant, UBC, Vancouver, B.C. Canada, conducted research on corrugated board cutting by high energy liquid jet, 1968-1970.

Scientific Assistant at Austrian Wood Research Institute, Vienna, Austria, 1966 – 1968.

Engineer at Warski's Shipyard, Szczecin, Poland, 1964-1965.

PUBLICATIONS

Published over 70 papers, 19 conference proceedings, and over 35 research reports related to wood machining and cutting tools.

Since January 1984, Editor and Publisher of an international bimonthly newsletter, *Wood Machining News.* Published 195 issues as of April 2016.

CONFERENCES AND WORKSHOPS

Initiated and served as program chairman for:

10 - International Conferences on Sawing Technology (SawTech 1989 - 2007)

3 – International Symposia on Computers in Furniture and Cabinet Manufacturing (CIFAC 1992-1996)

Developed technical programs for:

- 11 International Conferences on Scanning Technology and Process Optimization in the Wood Industry (1985-2007)
- 2 International Wood Machining Seminars (1981 & 2001).
- 1 ScanTech and SawTech 2006, Buenos Aires, Argentina

Conducted WMI annual workshops on:

Design, Operation, and Maintenance of Circular and Band Saws, and several workshops on wood machining and cutting tools in the U.S. (1980 – 2008, 2012 - 2015), and will conduct the upcoming **2016 WMI Workshop on Design, Operation, and Maintenance of Saws and Knives – with special session on safety** - see attached brochure.

Made over 90 technical presentations at various conferences and seminars in the U.S., Canada, Japan, South Africa, Australia, Argentina, Brazil, England, Germany, France, Finland, Norway, Sweden, Portugal and Poland.

MEMBERSHIPS

- American National Standard Institute-ANSI 01.1 Committee on Safety Requirements for Woodworking Machinery Safety Specialist (1983-1998, 2012-2014)
- American Society of Mechanical Engineers (1976-2003)
- Forest Products Society
- Society of Manufacturing Engineers
- Society of Wood Science and Technology (1977-2000)
- International Union of Forest Research Organizations Chairman of the Working Party Milling and Machining (1990-1998)
- Fellow of the International Academy of Wood Science
- Wood Machinery Manufacturers of America (WMMA) Associate Member/Educator (1990-2013)

Languages

Fluent in English, Polish, and German and a working knowledge of Russian.

A list of references concerning product liability and patent infringement cases are available upon request. A full resume is available on the website, <u>www.woodmachining.com</u>.