

2011 TAPPI KRAFT RECOVERY COURSE INSTRUCTORS



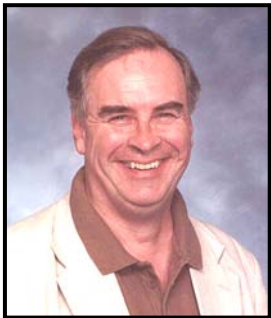
ROBERT (BOB) D. BARTHOLOMEW (B.S., Chemical Engineering, Bucknell University, Lewisburg, PA, U.S.A.) is a registered professional engineer who joined Sheppard T. Powell Associates LLC in 1986 as a senior engineer and is now an associate with the firm. He has provided consulting services in the areas of steam/water cycle chemistry, equipment inspections, chemical cleanings, makeup water treatment, cooling water treatment, and evaluations of deposition and damage in boilers, condensers, and turbines for the power, cogeneration, pulp and paper, steel, sugar, and other industries. Bob also has provided seminars for Power and Pulp & Paper Industry Clients. He is currently active in the ASME Research and Technology Committee for Water & Steam in Thermal Systems and has served as an instructor for the TAPPI Recovery Boiler Water Treatment course since 2002. He has authored or coauthored over 30 technical publications. At the 2009 International Water Conference, Bob received the Paul Cohen award for his 2008 presentation "An Introduction to Boiler Water Alkalinity Limits for Industrial Boilers".



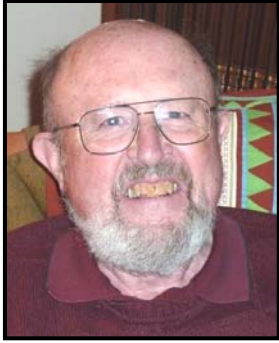
JIM BREWSTER is the Manager of Technology for the Pulp & Paper Division of J. D. Irving, Limited in Saint John, New Brunswick, Canada. Jim has spent 35 years in the kraft pulp industry. Jim earned his Bachelor of Science Degree in Chemistry from Portland State University and completed Minors in both Economics and Accounting. Throughout his career, Jim has worked as a Shift Supervisor for both Pulping and Recovery operations, was a Pulp mill Superintendent; Project Manager for a major kraft mill rebuild; Mill Energy Manager; Project Manager for the construction of a new recovery boiler and served as Assistant Plant Manager of Engineering, Process Engineering, Capital Projects and Environment. After 20 years at the Georgia-Pacific Pulp & Paper facility in Camas, Washington, he moved to eastern Canada to join the Irving Pulp & Paper Mill, Jim spent his first eight years as Production Manager and in 2001, assumed the role of Mill Manager. During his career at the Irving Pulp mill, he has managed the company's \$400 million investment in a total plant rebuild and environmental improvement projects. Irving Pulp & Paper is now the only mill in North America to meet all current wastewater discharge guidelines without primary or secondary effluent treatment. As a result of these accomplishments, it earned the Canadian Council of Ministers for the Environment (CCME) Award for pollution prevention, and was more recently awarded a National Sciences and Engineering Research Council (NSERC) 2005 Synergy Award for Innovation, in partnership with the University of New Brunswick (Saint John). In 2008, Jim assumed his current role with responsibility for developing a division-wide energy reduction plan.



DAVID CLAY is a Senior Process Consultant at Jacobs Engineering, Portland OR. In this position he works with clients in the pulp & paper and petrochemical industries on capital and process optimization projects related to energy cost reduction or productivity improvement. David obtained a B.S. in Chemical Engineering at Purdue University and a M.S. and Ph.D. in Chemical Engineering from the University of California at Berkeley. His prior work at Weyerhaeuser, James River, and International Paper focused on research, technical support, and process design challenges within the kraft chemical recovery cycle. David has authored or co-authored numerous papers in Tappi Journal or Tappi conferences and is a former faculty member of the Institute of Paper Chemistry (now IPST at Georgia Tech). His research and technical support work in the pulp and paper industry covers evaporation, concentration, drying, pyrolysis, gasification, and combustion. David is a member and past program chairman of the Tappi Steam and Power / Energy Management Committee.



DOUG FORAN is a chemical engineering graduate of Dalhousie University and earned a Master of Engineering degree from McMaster University in Hamilton Ontario. Doug has worked in the pulp and paper industry for 39 years. For the past 33 years, he has worked in Savannah Georgia, initially for Union Camp Corporation and now is with Arizona Chemical Company. For the past 21 years, he has worked as a Recovery Engineer. In this capacity he works with the contract suppliers of soap, tall oil and turpentine to help them improve their yield from the softwood pulped. He has consulted on soap and turpentine recovery in mills from Siberia to South America, but primarily in the southeastern United States. Doug is past chairman of the Alkaline Pulping Committee for TAPPI and a recipient of the Distinguished Leadership and Service Award for the Pulping Division. He has authored several papers on by-products recovery issues in Pulp and Paper, Naval Stores Review and TAPPI Journal. He authored the chapter on Tall Oil Soap Recovery in Chemical Recovery in the Alkaline Pulping Processes, Third Edition, TAPPI Press, 1992.



THOMAS M. GRACE is an adjunct professor at the University of Toronto and a consultant. He obtained a B.S. in chemical engineering at the University of Wisconsin and a Ph.D. from the University of Minnesota. He was on the faculty of the Institute of Paper Chemistry (now IPST at Georgia Tech) for 22 years, and headed the chemical recovery group. In 1988 he formed T. M. Grace Company, Inc consulting on recovery boilers and chemical recovery. He has a long involvement with BLRBAC and the AF&PA Recovery Boiler Committee and investigated recovery boiler explosions for 20 years. He is the author of many papers and book chapters dealing with chemical recovery. He received the TAPPI Gunnar Nicholson Gold Medal award in 2001.



TOM GENCARELLI is a Senior Application Specialist for Harbison-Walker Refractories Company, located just outside Pittsburgh, PA. Tom earned his BS in Industrial Engineering from Penn State in 2006 and his Masters in Business Administration from The University of Pittsburgh in 2009. Tom spends much of his time instructing operations personnel on the proper selection and installation of refractory materials with special focus on lime kilns and oil refineries. Tom is the refractory guest speaker at Metso Minerals lime kiln operation seminars. Tom edited the 2008 Handbook of Refractory Practice and wrote the Handbook of Refractories for the Pulp & Paper Industry, both published by Harbison-Walker.



GLENN HANSON is currently an Account Manager for the Mining & Construction Technology Services Business of Metso Minerals. As such, Glenn provides aftermarket services to Pyro, Process, Bulk Material Handling and Grinding equipment and systems across the southeast USA. He received a B.S. degree from the University of Wisconsin – Green Bay in 1986. He has worked for Metso & direct predecessor companies for 29 years including 18 years which have had focused efforts on lime recovery kiln systems. Glenn has been involved in process design, presentations, sales, installation, training, start-up and troubleshooting on lime recovery kiln systems worldwide. He is co-holder of a US Patent and continues R&D work on lime recovery kiln applications. Glenn has developed & presented more than 40 Lime Recovery Kiln Process/Operations Seminars. He has authored &/or co-authored numerous papers and presentations for TAPPI Technical Meetings & major Conferences including the International Chemical Recovery Conference. An 18 year TAPPI Member, Glenn has also served on various Local Section Executive Committees and is Past-Chairman of Gulf Coast TAPPI.



MIKKO HUPA is a Professor at the Chemical Engineering Department of the Åbo Akademi University (ÅAU) in Turku, Finland. Mikko received his Ph.D. degree in Chemical Engineering from ÅAU in 1980. He has authored or co-authored more than 200 journal papers in the areas of combustion chemistry, flue gas emission reduction, black liquor combustion and gasification, and fluidized bed combustion. He is also a co-author of the Kraft Recovery Boilers book, published by TAPPI Press in 1997. Mikko is also an active consultant to the Pulp and Paper and Energy Industries in issues concerning clean and efficient combustion processes. Mikko was named a TAPPI fellow in 2005.



PAUL JOHNSON is a Senior Process Engineer with A H Lundberg Associates, in Bellevue, Washington. He earned BS degrees in Pulp and Paper Technology and in Chemical Engineering from the University of Washington. After working for Potlatch Corporation, he earned an MS degree in Chemical Engineering from the University of Idaho in 1981, modeling full mill mass and energy balances. He was a guest researcher at STFI in Stockholm, Sweden, and also worked for Scott Paper. In his twenty-five years with A H Lundberg Associates he has managed a variety of pulp mill heat recovery, chemical recovery, and environmental projects, and presently concentrates on process evaluation and design, and project development. Areas of experience include blow heat and turpentine recovery, non-condensable gas collection and incineration, condensate segregation and stripping, liquor oxidation, waste gas incinerators, and gas scrubbing. He is a PE and TAPPI member, and has previously presented papers at TAPPI conferences and the Kraft Recovery Short Course.



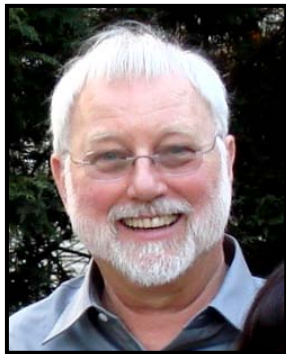
RICHARD MANNING is Director of Kiln Flame Systems Ltd (KFS), a combustion equipment and design company based in High Wycombe, 25 miles north-east of London, England. He earned a BSc in Chemistry and MSc in Combustion Engineering at the University of Leeds in England. He had a successful R&D career with BP between 1980 and 1994 with placements at their research engineering facilities in England and US, and their chemicals operation in Scotland. In 1995 he joined a combustion engineering company and rapidly rose to General Manager for the UK operation by 1997. In 1999, he and his team successfully completed a management buy-out of the UK operation and rebranded the company as KFS. The company has worked on over 100 lime recovery kilns in all continents of the world. Areas of expertise are focused on the lime recovery kilns, specifically related the primary combustion and safety systems, and generic kiln operation and optimization. Richard is a TAPPI member and has previously authored and co-authored papers at TAPPI EPE, ICRC and Appita conferences as well as writing publications in technical journals.



JEAN-CLAUDE PATEL holds a Ph.D. in Industrial Chemistry from ENSIC in Nancy, France and a Masters in Chemical Engineering from ENSC, Paris, France. He has over 30 years of experience in sales, project management and process design of numerous heat and mass transfer equipment for the Pulp and Paper Industry. Over the years, his responsibilities have covered business/client development, site specific reviews, direction of R&D programs, detailed design and technology selection as well as overall projects cost evaluations and contracting. He has been directly involved in the achievement of various milestones for the Industry. Earlier in his career, Jean-Claude was a project manager on several major turnkey projects in France, Iran, Belgium and the Soviet Union. He is a TAPPI member and the author of several technical papers on evaporation technologies and on the concepts, and challenges, of zero-discharge pulp mills.



DALE SANCHEZ is a recausticizing process specialist with Vector Process Equipment Inc., Vector represent Kadant Black Clawson – Goslin Products in Canada. Goslin is a supplier of recausticizing equipment and heat transfer equipment such as evaporators and concentrators. Dale was educated in England and has a Diploma in Civil Engineering. He left England in 1974 and since 1981 he has been involved with the commissioning and troubleshooting recausticizing plants in Kraft mills. He has worked for Dorr-Oliver Canada and EIMCO Process Equipment. He has been a speaker on the CPPA Kraft Pulp Manufacturing Course and has been an instructor on the TAPPI Kraft Recovery Short Course since 1997.



W.B.A. (SANDY) SHARP is an independent consultant specializing in corrosion and materials problems in pulp and paper mills. He has master's degrees in metallurgy and in corrosion from Cambridge and London Universities in the U.K., and a Ph.D. in Chemistry from the University of Ottawa. His 4 decades of materials engineering experience in the utility, pulp and paper and chemicals industries includes 28 years leading corrosion control programs for Westvaco (now MWV). He developed TAPPI's short course on solving corrosion problems, and has published more than 50 technical papers in refereed journals. He has won TAPPI's Engineering Division Award and Joachim Leadership and Service Award. Sandy was elected a TAPPI Fellow the first year he was eligible (1989), became the first NACE (Corrosion Engineers' Association) Fellow from the pulp and paper industry and is also a Fellow of the Materials Technology Institute.



HONGHI TRAN obtained a B.Sc. and M.Eng. in Ceramic Engineering from Shizuoka University in Japan, and received a Ph.D. in Chemical Engineering from the University of Toronto, Canada in 1982. Honghi is Frank Dottori Chair in Pulp and Paper Engineering, a professor in the Department of Chemical Engineering and Applied Chemistry, and the Director of the Pulp & Paper Centre at the University of Toronto. His research interests have been in the areas of fouling and corrosion in recovery boilers, ringing and nodule formation in lime kilns, and borate autocausticizing. Honghi was Program Chairman of the 1995 International Chemical Recovery Conference (ICRC) in Toronto and Conference Chairman of the 2008 ICRC in Tampa. He has authored over 200 refereed papers and has 8 patents. Honghi was named a TAPPI fellow in 2000, and was the recipient of the 2003 Tappi Research & Development Technical Award and the William H. Aiken Price and the 2006 Tappi Engineering Beloit Award.



ARIE VERLOOP is Vice President of Technology and Client Relations with Jansen Combustion and Boiler Technologies, Inc. (JANSEN), located in Kirkland, Washington. He obtained a B.S. and M.S. in Chemical Engineering at the University of Twente in The Netherlands. In 1980 he left Holland to seek adventure and challenge in America and to join JANSEN. For over 30 years now, it has been just that, particularly in the Pulp & Paper Industry! At JANSEN, Arie served as Process Engineer, Manager of Process Engineering, and became Vice President of Process Engineering in 1997. Arie's primary expertise focuses on process engineering aspects of biomass and chemical recovery boiler combustion and operational performance, such fuel burning capacity and economy, reliability and up-time, air emissions, corrosion, and safety factors. He is recognized as a process expert and a valuable resource in waste fuel-fired boiler performance evaluations, capacity upgrade feasibility studies, operational reviews and troubleshooting. For over 20 years, Arie has participated in BLRBAC, AF&PA, TAPPI, and more recently also in NAWTEC (North American Waste-to-Energy Conference). He has co-authored many technical papers and has conducted numerous Recovery Boiler Operations Training Seminars (RBOTS) and Biomass Boiler Workshops (BBW). He is a licensed Professional Chemical Engineer.