Turbomachinery Symposium Advisory Committee

Dara W. Childs has been Director of the Turbomachinery Laboratory since 1984 and holds the Leland T. Jordan Chair in Mechanical Engineering at Texas A&M University. He received B.S. and M.S. degrees (Civil Engineering, 1961, 1962) from Oklahoma State University, and his Ph.D. (Engineering Mechanics, 1968) from the University of Texas. He was named an ASME Fellow in 1990, and received ASME's Henry R. Worthington Medal in 1991.

Dr. Childs' expertise is in dynamics and vibrations, with an emphasis in rotordynamics. He has conducted research and engineering projects for NASA, DOD, and private firms. Current research includes: high-pressure testing honeycomb and hole-pattern gas damper seals; testing high-pressure laminar oil seals; force measurements in magnetic bearings using fiber-optic strain gauges.

Dr. Childs has authored numerous reviewed publications related to rotordynamics and vibrations, and the book, *Turbomachinery Rotordynamics*. He is presently completing a new dynamics book entitled, *Dynamics in Engineering Practice*.

Marcelo Accorsi Miranda is a Turbomachinery Advisor with Petrobras E&P Business Unit, in Rio de Janeiro, Brazil. He has been in the oil and gas industry for 28 years. Mr. Miranda is responsible for the technical support to existing machinery operations, as well as for conceptual design, specification, selection, and shop test acceptance of turbomachinery. His background includes comprehensive evaluation of energy and compression systems, including life cycle analysis and RAM analysis. He is a member of the Advisory Committee of the Brazilian Maintenance Association and a member of the Turbomachinery Symposium Advisory Committee.

Mr. Miranda received a B.S. degree (Mechanical Engineering) from Universidade Federal do Rio de Janeiro and an M.S. degree (Industrial Engineering) from Universidade Federal Fluminense. He has authored and coauthored technical papers on turbomachinery testing, low and high speed balancing, compressor selection, RAM analysis, and life cycle costs analysis.

Kazim Akhtar is the Department Manager for Mechanical Engineering of ABB Lummus Global, in Houston, Texas. His department is involved in the specification, design, selection, shop test acceptance, and startup coordination of rotating and static equipment for major refinery, petrochemical, and oil and gas projects.

Mr. Akhtar received a B.S. degree (Mechanical Engineering) from Texas A&M University and an M.S. degree (Industrial Engineering, Management) from the University of Houston. He is an active member of API, AICHE, ASME, a registered Professional Engineer in the State of Texas, and a member of the Turbomachinery Symposium Advisory Committee.

Bruce Bayless is with Valero Energy Corporation, in San Antonio, Texas.

Kenneth O. (Ken) Beckman is Chief Engineer of the Power Transmission Division of Lufkin Industries, Inc., in Lufkin, Texas. Since college graduation he has been in gear engineering with Lufkin Industries. He previously served as a Design Engineer in high-speed gearing, and in 1985 he was promoted to Chief Engineer responsible for the engineering on all gears including low-speed through high-speed, marine, and repair. Mr. Beckman has spent a considerable portion of his time working with users and service departments to solve gearing problems. The Quality Assurance Department and the Test Stand area were added to his responsibilities in 1998.

Mr. Beckman received a B.S. degree (Mechanical Engineering, 1972) from Montana State University. He is an active member of AGMA and API. He is currently on the Advisory Board for the University of Louisiana at Lafayette.

Gampa I. Bhat is Chief Machinery Engineer for ExxonMobil Chemical Company, in Baytown, Texas. As Lead Specialist, he acts as the focal point for the ExxonMobil Chemical Worldwide Machinery Network and is involved with the development of machinery strategies for new and upgrade projects. He is also involved in the selection, operation, maintenance, and troubleshooting of machinery systems.

Mr. Bhat received his B.S. degree (Mechanical Engineering) from Karnataka University in India, and an M.S. degree from West Virginia College of Graduate Studies. He is a member of ASME.

Meherwan P. Boyce is Chairman of The Boyce Consultancy Group, LLC, in Houston, Texas. He has 40+ years of experience in the turbomachinery field, with 30 years in the design of compressors and turbines. His 15 years in academia include being Professor of Mechanical Engineering at Texas A&M University, and Founder of the Turbomachinery Laboratories and the Turbomachinery Symposium. Dr. Boyce has authored more than 130 technical publications and several books, including *Gas Turbine Engineering Handbook, Cogeneration & Combined Cycle Power Plants, and Centrifugal Compressors, A Basic Guide*. He has taught over 150 short courses globally attended by over 4500 students representing 400 companies, and is a Consultant to the aerospace, petrochemical, and utility industries.

Dr. Boyce received a B.S. and M.S. degree (Mechanical Engineering) from the South Dakota School of Mines and Technology and the State University of New York, respectively, and a Ph.D. degree (1969) from the University of Oklahoma.

Steven Brewton is Manager of Technical Support for TXU Power, in Dallas, Texas. He is responsible for the repair of major equipment that ships offsite for the repair, and for the technical recommendations on fossil power plant equipment. He has worked for TXU Energy for 27 years and has held various positions including Manager of Equipment Repair, Manager of Maintenance Services, and Senior Engineer. He previously worked as a Plant Manager for the City of Bryan, Texas, and for Westinghouse Electric Corporation as a Field Service Engineer. As a Field Service Engineer, he worked with inspection, repair, and installation of steam turbines, mainly in Texas.

Mr. Brewton has a B.S. degree (Mechanical Engineering, 1972) from New Mexico State University. He is a member of ASME and is a registered Professional Engineer in the State of Texas.

John B. Cary is Vice President of Advanced Reliability Technologies, LLC, of Houston, Texas. He consults on the development and application of streamlined reliability centered maintenance strategies. He has over 30 years of experience in the hydrocarbon processing and petrochemical industries, responsible for creating and managing reliability improvement programs. Mr. Cary previously held reliability and maintenance positions with Tosco Refining Company. He was instrumental in the development and implementation of a comprehensive computerized maintenance management system, and led development of the first computer-based data collection system for pipe thickness corrosion monitoring.

Mr. Cary is a graduate of Columbia College and received his B.S. degree from the University of San Francisco. He has authored and presented several technical papers, and is a member of the Turbomachinery Symposium Advisory Committee.

Timothy J. (Tim) Christ is a Mechanical Engineering Associate at The Dow Chemical Company, in Freeport, Texas. In this role, he assists rotating equipment engineers in the Maintenance Technical Services group as well as Reliability and Maintenance Engineers in the various businesses regarding turbomachinery issues.

Mr. Christ spent most of his career in the Critical Mechanical Equipment group. However, he recently acted as a Maintenance Representative on a large-scale grass-roots plant constructed in Freeport. He is presently a member of the Dow Global Turbomachinery Technology Resource Network (TRN), which is a network of turbomachinery subject matter experts from various global sites. He was coauthor of a paper for the Twenty-Sixth Turbomachinery Symposium and presented a Case Study at the Thirtieth Turbomachinery Symposium.

Mr. Christ has a B.S. degree (Mechanical Engineering) from Texas A&M University (1978).

Clifford P. (Cliff) Cook retired from ChevronTexaco and is President of CVC Engineering, in Houston, Texas. He provides turbomachinery consulting services to the process industries with 42 years' experience. He is a ChevronTexaco Fellow, Emeritus, and is Chairman Emeritus and past Vice Chairman of the API Subcommittee on Mechanical Equipment and member of its Steering Committee. He is Chairman of API RP 687 and API SOME Standard Paragraphs, and past Chairman of API 613 and 677. Mr. Cook is a member of API 617, 616, 614, and past member of API 610, 684 Tutorial, and 618. He also serves on the ANSI Technical Advisory Group to ISO Technical Committee 67 Subcommittee 6. He has been a member of the Texas A&M Turbomachinery Symposium Advisory Committee since 1993.

Mr. Cook has a B.S. degree from the U.S. Merchant Marine Academy, Kings Point, and an M.S. degree (Mechanical Engineering) from Lehigh University.

Thomas R. (Tom) Davidson is Reliability Manager for BOC Gases at their Clear Lake, Texas, facility. He is responsible for managing all maintenance and reliability activities for the site. He has more than 25 years of experience in the petrochemical industry, in the field of equipment reliability and maintenance management.

Mr. Davidson received a B.S. degree (Mechanical Engineering, 1978) from the University of Houston. He is a member of ASME, NSPE, the Vibration Institute, and he serves on the Turbomachinery Symposium Advisory Committee. Mr. Davidson is a registered Professional Engineer in the State of Texas.

Michael J. Drosjack is a Senior Principal in the Rotating Equipment Department at Shell Global Solutions (US) Inc., in Houston, Texas. He is responsible for providing technical support for rotating and reciprocating machinery to Shell and Shell affiliated companies worldwide, as well as commercial customers. Since joining Shell in 1975, he has had assignments on projects involving specification, evaluation, installation, and startup of machinery along with extensive field troubleshooting, particularly in the area of vibration measurement, vibration analysis, and rotordynamics.

Dr. Drosjack received his B.S. degree (Mechanical Engineering, 1970) from Carnegie-Mellon University, and his M.S. (1971) and Ph.D. (1974) degrees (Mechanical Engineering) from The Ohio State University. He is a member of ASME, the Vibration Institute, the Machinery Subcommittee of the Ethylene Products Committee, participates in API task forces, and has been a speaker and panelist for NPRA. He has been a Turbomachinery Symposium Advisory Committee member since 1986.

John R. (Johnny) Dugas, Jr., is an emeritus member of the Turbomachinery Advisory Committee. He is Technical Fellow in the P&IP Department of E.I. duPont de Nemours and Company, Inc., in Orange, Texas. Since 1980, he has been assigned to the Technical Department of the ethylene manufacturing facility where he is involved in repair, troubleshooting, redesign, and specification of turbomachinery and other process equipment.

He has worked at DuPont since graduating from the University of Southwestern Louisiana with a B.S. degree (Mechanical Engineering, 1973). Previous activities with DuPont dealt with maintenance and construction of mechanical equipment including assignments with DuPont's Construction and Field Service Divisions. He is a registered Professional Engineer in the State of Texas.

Francisco J. Gonzalez is the Reliability Manager for Enterprise Products Co., in Houston, Texas. He currently operates machinery over 2.1 MM installed horsepower in natural gas and NGL processing plants. He has more than 17 years of experience in the operations and maintenance of rotating equipment, 11 years at Enterprise and six years with Amoco Chemical at Texas City. The Reliability Department at Enterprise is primarily responsible for providing technical support to operation and maintenance, which includes rotating equipment vibration monitoring, aerothermal performance monitoring, troubleshooting, overhaul, performance testing, and gas turbine and compressor optimization, as well as evaluating short-term and long-term reliability improvements for all rotating equipment. Mr. Gonzalez has coauthored several technical papers for the Turbomachinery Symposium and ASME Power Gen, as well as articles on improving reliability in various publications.

Mr. Gonzalez has a B.S. degree (Mechanical Engineering, 1990) from the University of Houston.

Robert F. (Bob) Heyl is Senior Staff Engineer with Chevron Energy Technology Company, in Houston, Texas. He is also team leader of Chevron Machinery and Mechanical Systems Technology Network, coordinator of Rotating Equipment Facilities Engineering Organizational Community, and leader of the Mechanical Equipment Round Table attended by Chevron's mechanical equipment personnel from around the world. Mr. Heyl has been with Texaco and Chevron for 36 years and is responsible for the design and troubleshooting of mechanical equipment internationally. His responsibilities include equipment application, specification, selection, installation, troubleshooting, and the development and promotion of new technologies throughout the company.

Mr. Heyl has a B.S. degree (Engineering Science) from Hofstra University and attended Columbia University. He is a Steering Committee member of the API Subcommittee on Mechanical Equipment, and is Chairman of API 674, API 675, and API 676 Task Forces. He has participated on API 610, API 614, and API 682.

Lil Kassie is presently Rotating Equipment Advisor for BP refining. He is located at BP's Whiting, Indiana, refinery where he has worked for 24 years. He has held positions as Rotating Equipment Specialist, Superintendent of the Rotating Equipment and Reliability Engineering Group, and Senior Rotating Equipment Consultant. In his present position, Mr. Kassie is responsible for providing machinery expertise, sharing and implementing equipment practices, and development coaching for improving equipment reliability and plant availability throughout BP. Prior to his tenure at BP, Mr. Kassie worked as Rotating Equipment Superintendent for Energy Cooperative Inc. and as a Field Service Engineer for Ingersoll Rand. He has presented technical papers at various rotating equipment conferences including the Turbomachinery Symposium and Rotating Machinery Users Council.

Mr. Kassie holds B.S. and M.S. degrees (Mechanical Engineering) from the University of Wisconsin.

Rainer Kurz is Manager of Systems Analysis and Field Testing for Solar Turbines Incorporated, in San Diego, California. His organization is responsible for predicting gas compressor and gas turbine performance, for conducting application studies, and for field performance tests on gas compressor and generator packages. He has authored numerous publications in the field of turbomachinery and fluid dynamics. He won the ASME-IGTI Oil & Gas Application Committee Best Paper awards in 1998, 2000, and 2003 for his work on gas turbine testing, degradation, and application considerations.

Dr. Kurz attended the University of the Federal Armed Forces, in Hamburg, Germany, where he received the degree of a Dipl.-Ing., and, in 1991, the degree of a Dr.-Ing. He is an ASME Fellow, and a member of the Turbomachinery Symposium Advisory Committee.

Mark J. Kuzdzal is the manager of Core Technologies at Dresser-Rand Company, Olean Operations, in Olean, New York. He is responsible for overseeing rotordynamics, materials, welding, solid mechanics, and acoustics disciplines. He has been with the company since 1988. Mr. Kuzdzal's areas of expertise are rotordynamics, bearing performance, field vibration issue resolution, and product/process development. He has coauthored many technical papers and holds two U.S. Patents.

Mr. Kuzdzal has a B.S. degree (Mechanical Engineering, 1988) from the State University of New York at Buffalo.

Stephen R. (Steve) Locke is a Senior Consultant with E. I. du Pont de Nemours and Company, Inc., with 34 years of turbomachinery and rotating equipment experience. He is assigned to DuPont Engineering Technology Rotating Machinery Group, in Old Hickory, Tennessee. Since 1983, Mr. Locke has been an engineering consultant for turbomachinery and process machinery making reliability improvements, machine retrofits, and performance analysis on operating equipment, and helps specify and startup new equipment. During his first 11 years with DuPont, he held plant assignments in the Petrochemical Department providing technical assistance to operations and maintenance and was responsible for startup of several large process compressors and other process equipment.

Mr. Locke has a B.S. degree (Mechanical Engineering, 1972) from Purdue University and is a member of ASME. He has presented several papers at the Turbomachinery Symposia, at the University of Virginia ROMAC, and represents DuPont on Texas A&M's Turbomachinery Research Consortium.

Terryl Matthews is Senior Rotating Equipment Engineer with Shell Global Solutions (US) Inc., in Houston, Texas. He retired in 2003 from Dow Chemical, Design and Construction, after 30 years. His responsibilities at Dow included equipment selection, specifications, technical support, mechanical and performance testing, consulting, troubleshooting, and field assistance in the area of rotating equipment. After that, he was Principal Rotating Equipment Specialist with Bechtel for four years.

Mr. Matthews holds a B.S. degree (Mechanical Engineering, 1972) from the University of Houston. He is author of six technical papers, a member of ASME, the Ethylene Producers Conference Rotating Machinery Subcommittee, and ASME's International Gas Turbine Institutes Industrial and Cogeneration Committee. He is a former member of the API Committee on Refinery Equipment and sponsor for SOME, served on API Task Forces 613 and 677, a former member of ASME B73 Committee, and a registered Professional Engineer in the State of Texas.

Hiroaki Ohsaki is Deputy General Manager of Mitsubishi Heavy Industries, Hiroshima Machinery Works, in Hiroshima, Japan. His responsibility is for both technical and commercial aspects of machinery products manufactured in the Kan-on plant. His previous assignment for the Turbomachinery Engineering Department is still part of his responsibility. This department is involved in the marketing, R&D (providing direction), designing of centrifugal compressors, integrally geared compressors, mechanical drive steam turbines, and mechanical drive gas turbines for the petrochemical, oil refinery, and the upstream oil and gas markets. He joined Mitsubishi Heavy Industries in 1975.

Mr. Ohsaki received a B.S. and M.S. degree (Mechanical Engineering) from Osaka University.

Vinod Patel is a Chief Technical Advisor, Machinery Technology, for KBR, in Houston, Texas. In his assignment, he is responsible in the preparation and auditing of specifications, equipment evaluation, engineering coordination, and testing and installation startup of rotating and special equipment. He has worked in various applications of rotating machinery in the petrochemical and refinery processes including ammonia, LNG, olefins, cat-cracking, and hydrotreating for domestic and international projects.

Mr. Patel received B.S. and M.S. degrees (Mechanical and Metallurgical Engineering) from Maharaja Sarajirao University and Youngstown University, respectively. He is a registered Professional Engineer in the State of Texas.

Douglas (Doug) Petrie is responsible for the Service Sales activity for GE Oil and Gas in Latin America, and is based in Houston, Texas. He joined GE in 2002, and, prior to that, he worked for Elliott Turbomachinery and Dresser Industries. Mr. Petrie has 29 years of experience in the rotating equipment industry where he has held various jobs in both operations and sales. His most recent role, before taking Latin America Sales, was three years as General Manager of Services in North America for GE Oil and Gas.

Mr. Petrie has a B.S. degree (Mechanical and Industrial Engineering) from Clarkson University.

Bernard Quoix is with TOTAL, in Pau, France.

Peter C. Rasmussen is a Supervisor in the Gas & Facilities Division of ExxonMobil Upstream Research Company, in Houston, Texas. He is responsible for developing applications in the LNG and gas area as well as machinery support to the upstream companies. He began his career in machinery with General Electric as a Field Engineer installing and maintaining gas and steam turbines. Mr. Rasmussen joined Mobil in 1978 in the New Orleans E&P Operating Company as a Machinery Engineer and has since held several positions in engineering and operations. His work has included design, construction, and startup of offshore production platforms and LNG plants.

Mr. Rasmussen received his B.S. degree (Ocean Engineering, 1974) from Florida Atlantic University, Boca Raton. He is a registered Professional Engineer in the State of Texas, and is a member of the Turbomachinery Symposium Advisory Committee.

Terry L. Roehm is a Corporate Reliability Engineer for Marathon Oil, in Houston, Texas. He specializes in rotating equipment and his responsibilities focus on improvement of the reliability of rotating equipment for the upstream of Marathon. In addition, Mr. Roehm is involved with the specification, selection, procurement, installation, startups, troubleshooting, and turnaround planning for the rotating equipment. He has had various positions in maintenance and engineering with the downstream portions of Marathon Petroleum and Ashland Oil for more than 30 years.

Mr. Roehm has a B.S. degree (Mechanical Engineering) from Purdue University. He is a registered Professional Engineer in the State of Kentucky, the current Chairman of the API Subcommittee on Mechanical Equipment, and a member of ASME.

Charles R. (Charlie) Rutan is Senior Engineering Advisor, Specialty Engineering, with Lyondell Chemical Company, in Alvin, Texas. His expertise is in the field of rotating equipment, hot tapping/plugging, and special problem resolution. He has three patents and has consulted on turbomachinery, hot tapping, and plugging problems all over the world in chemical, petrochemical, power generation, and polymer facilities.

Mr. Rutan received his B.S. degree (Mechanical Engineering, 1973) from Texas Tech University. He is a member of the Advisory Committee of the Turbomachinery Symposium, and has published and/or presented many articles.

Donald R. Smith is a Senior Staff Engineer at Engineering Dynamics Inc. (EDI), in San Antonio, Texas. For the past 40 years, he has been active in the field engineering services, specializing in the analysis of vibration, pulsation, and noise problems with rotating and reciprocating equipment. He has authored and presented several technical papers. Prior to joining EDI, he worked at Southwest Research Institute for 15 years as a Senior Research Scientist, where he was also involved in troubleshooting and failure analysis of piping and machinery.

Mr. Smith received his B.S. degree (Physics, 1969) from Trinity University. He is a member of ASME and the Vibration Institute.

Stanley Stevenson is Service Engineering Manager for Siemens Power Generation Industrial Applications (formerly Demag Delaval), in Trenton, New Jersey. He has been with them for more than 25 years and has been involved in the design, manufacture, and testing of rotating equipment for the chemical, oil and gas, utility, and power generation markets. In his current role, Mr. Stevenson is responsible for the design and component selection for rotating equipment trains and auxiliary support systems, technical interface with customers, field service support during equipment installation, startup, and field operational problems.

Mr. Stevenson has received both B.S. and M.S. degrees (Mechanical Engineering, 1980, 1983) from Drexel University. He is a member of ASME and is a registered Professional Engineer in the State of Pennsylvania. Mr. Stevenson is a member of PMI, where he is a certified PMP.

John M. Vance has retired as a Professor of Mechanical Engineering at Texas A&M University. He received his B.S. (Mechanical Engineering, 1960), M.S. (Mechanical Engineering, 1964), and Ph.D. (1967) degrees from the University of Texas.

Prior to joining Texas A&M (1978), Dr. Vance held positions at Armco Steel, Texaco Research, and Tracor, Inc., and developed a Rotordynamics Laboratory at the University of Florida. He is currently conducting research on rotordynamics, damper seals, and bearing dampers. He has published a book, *Rotordynamics of Turbomachinery* (John Wiley, 1988), and more than 90 technical articles and reports. Dr. Vance is consultant to industry and government and has held numerous summer appointments. He organized an annual short course (1981-2004) for industry at Texas A&M on "Rotordynamics of Turbomachinery." He is co-inventor of several TAMU patents for pocket damper seals. Dr. Vance is a member of ASME and ASEE, and is a registered Professional Engineer in the State of Texas.

Hans P. Weyermann is a Principal Rotating Equipment Engineer in the Drilling and Production Technology department of ConocoPhillips Upstream Company, in Houston, Texas. In his current position, he supports all aspects of turbomachinery for existing business units and grass roots capital projects. He is also responsible for overseeing corporate rotating machinery technology development initiatives within the ConocoPhillips Upstream Company.

Mr. Weyermann received a B.S. degree (Mechanical Engineering, 1978) from the College of Engineering in Brugg-Windisch, Switzerland. He joined Sulzer Escher-Wyss Turbomachinery in Zurich as an Application/Design Engineer in the turbocompressor department. Prior to joining the ConocoPhillips Company, he was the Supervisor of Rotating Equipment at Stone and Webster Engineering in Houston. Mr. Weyermann is a member of ASME, the API SOME, and serves on several API Task Forces.

John K. Whalen is Engineering Manager and President of TCE/Turbo Components and Engineering, Inc., in Houston, Texas. He spent seven years at Turbodyne Steam Turbines (Dresser-Rand) as a Product Engineer in the Large Turbine Engineering Department and as an Analytical Engineer in the Rotordynamics Group of the Advanced Engineering and Development Department. In 1988, Mr. Whalen accepted a position with Centritech, as the Assistant Chief Engineer, and in 1989, he was promoted to Manager of Engineering. In 1991, he left Centritech to help start TCE. At TCE, he is responsible for the engineering department and engineering for the product lines, which include babbitted journal and thrust bearings, labyrinth seals, and related engineering services.

Mr. Whalen received his B.S. degree (Mechanical Engineering, 1981) from the Rochester Institute of Technology. He is a member of ASME, STLE, and the Vibration Institute, and is a registered Professional Engineer in the State of Texas.

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