

DISCUSSION GROUP 1
on
TURBOMACHINERY OPERATION AND MAINTENANCE



Charles R. (Charlie) Rutan, Coordinator, 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.



Rainer Kurz, Coordinator, 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.



Mike Pepper is a Senior Mechanical Consultant (machinery) with ExxonMobil Production Company, in Houston, Texas. He has worked in the oil and gas industry for over 30 years and has been with ExxonMobil for 26 years. Mr. Pepper has gained expertise across a range of machinery aspects, including equipment design selection, purchase, testing commissioning, and operations support. During his career, he has worked in a range of challenging environments, including the North Sea, Qatar, Indonesia, and Nigeria.

Mr. Pepper's main field of expertise lies with operations and maintenance support of large turbine-driven compressor packages used in a variety of onshore and offshore services from LNG through high pressure sour gas injection. He is particularly interested in safely extending the runtime between turbine overhauls through product improvements and enhanced surveillance techniques. In his current role, Mr. Pepper provides leadership to ExxonMobil's global organization toward continuous improvement of machinery maintenance and reliability.

DISCUSSION GROUP 2
on
MONITORING VIBRATION AND
OTHER CRITICAL MACHINE CONDITIONS



Michael J. Drosjack, Coordinator, 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.



Stephen R. (Steve) Locke, Coordinator, 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.

Rob Parchewsky is with Shell Global Solutions International B.V., in Den Haag, Netherlands.



L.E. (Ed) Watson is a consultant with E.I. DuPont de Nemours & Company, Inc., located in Houston, Texas. He works in the DuPont Engineering Technologies and Research Division of DuPont Engineering. His responsibilities include the specification and repair of turbomachinery and other rotating equipment, vibration and stress analysis, predictive maintenance and equipment reliability improvement, process equipment application, and general engineering consulting on machinery and processes. Mr. Watson has been with DuPont for over 30 years and works on capital projects and engineering support of plant operations. He previously worked as a designer for Lufkin Industries and as a production engineer with Humble Oil.

Mr. Watson has a B.S. degree from Lamar University and an M.S. degree from The University of Texas at Austin (both in Mechanical Engineering). He is active in the Vibration Institute and is a past chairman of both the Triplex Chapter and Houston Chapter of the Vibration Institute.

DISCUSSION GROUP 3

on

MACHINERY PURCHASING



Terryl Matthews, Coordinator, is a Principal Rotating Equipment Specialist with Bechtel Corporation, 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. Bechtel projects have included major refineries, LNG plants, and coal gasification plants.

Mr. Matthews holds a B.S. degree (Mechanical Engineering, 1972) from the University of Houston. Author of six technical papers, he is a member of ASME, the Ethylene Producers Conference Rotating Machinery Subcommittee, and the ASME 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, is a former member of ASME B73 Committee, and is a registered Professional Engineer in the State of Texas.



Kazim Akhtar, Coordinator, 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.

Allen Glenn is with Shell Oil Products US, in Houston, Texas.



Richard A. (Rich) Lewis is a Mechanical Associate at Dow Chemical in Houston, Texas. He has over 30 years' experience in rotating equipment, and has spent the last 13 years with Dow Chemical in the rotating equipment area. He works with compressors, turbines, pumps, agitators, gears, centrifuges, extruders, and other critical and noncritical rotating equipment. Before joining Dow Chemical, he was Test Engineer, Senior Compressor Application Engineer, and Manager of Zone Engineering with Elliott Company.

Mr. Lewis received a BSME from Penn State University, and is a registered Professional Engineer in the State of Texas. He is a member of the ASME B73 committee, PIP Machinery Function Team, API Mechanical Steering Team, API Subcommittee on Mechanical Equipment, and has served on API Task Forces 619, 674, and 617, where he has served as both a manufacturer's representative and as a user. He is currently Chairman of the API 614 Task Force.



Brian J. Setzenfand is Manager of Apparatus Marketing with Elliott Company, located in Jeannette, Pennsylvania. In his current role, he is responsible for turbomachinery sales within the petrochemical, oil refinery, liquefied natural gas, and industrial markets. Mr. Setzenfand is also responsible for market forecasting and strategic planning activities for Elliott Company's Engineered Products Business Unit. Prior to his current role, he has held various positions in centrifugal compressor application engineering, steam turbine application engineering, and marketing since joining the company in 1990.

Mr. Setzenfand has a B.S. degree (Mechanical Engineering) from the University of Pittsburgh and has an M.B.A. degree from Duquesne University.



W.J.H. (Bill) Somerville is Director, Supply Chain Management, Suncor Energy Services Inc., in Calgary, Alberta, Canada. He has 24 years' experience in design, procurement, construction, commissioning, and project management of natural gas compressor station and pipeline facilities, and implementation of strategic procurement and supplier quality/improvement programs. He has worked for numerous companies, including NOVA Corporation, TransCanada Pipelines, PMMS Asia/Pacific-Air New Zealand, Alliance Pipeline, and Shell Petroleum Development Company of Nigeria.

During his career, Mr. Somerville has had the following responsibilities: project management, design and installation/commissioning supervision, strategic procurement, supervision of materials procurement/contracting teams, mechanical design and multidiscipline project teams, as well as preliminary and detailed mechanical station design. He has extensive experience with the specification, evaluation, award, installation, and commissioning of turbomachinery.

Mr. Somerville graduated with a B.A.Sc. degree (Mechanical Engineering, 1982) from the University of Waterloo, and is a registered Professional Engineer in the Province of Alberta.



Mike Thuillez currently holds the position of Account Executive for GE Energy Global Sales, in Houston, Texas. He has more than 25 years of turbomachinery experience in the oil and gas industry working in the areas of field service, product design, marketing, and sales.

Mr. Thuillez has a B.S. degree (Mechanical Engineering) from Clarkson College of Technology, and is a registered Professional Engineer in the State of Pennsylvania.



E.V. (Van) Wilkinson is an Engineering Advisor with Shell Chemical Company, in Houston, Texas. He is currently assigned to the Engineering Equipment Department of Plant Engineering and Construction. In this assignment, he is responsible for specification, evaluation, and systems integration of rotating equipment for new processing plants. He also provides field installation, commissioning, and startup support for this new machinery.

Mr. Wilkinson has a B.S. degree (1973) and an M.S. degree (1975) in Mechanical Engineering from the University of Florida. While in college, he was a member of Pi Tau Sigma and Tau Beta Pi professional fraternities. Mr. Wilkinson is a registered Professional Engineer in the State of Texas.

DISCUSSION GROUP 4
on
OVERSPEED TRIP SYSTEMS

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



Timothy J. (Tim) Christ, Coordinator, 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).

DISCUSSION GROUP 5

on

HOT GAS EXPANDERS



Michael J. Drosjack, Coordinator, is with Valero Energy Corporation, in San Antonio, Texas. 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.



Lil Kassie, Coordinator, 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.



Joe Brittain is President and Chief Engineer of Brittain Consulting, P.C., in Naperville, Illinois. The company provides petrochemical industry consulting services designed to improve rotating equipment reliability via root cause failure analysis and innovative solutions. Mr. Brittain has a rotating equipment background in the chemical and refining industries spanning more than 35 years in design, maintenance, and project management. He retired from BP Amoco in 2000 where he was a Reliability Supervisor and Senior Consultant. Prior to that, he was with Dravo Engineers & Constructors and BFGoodrich Chemical.

Mr. Brittain is a member of ASME, STLE, and has served on the Task Force of numerous API Standards. He received his BSME from the University of Kentucky (1966), and is a registered Professional Engineer in the States of Kentucky and Illinois and Certified Lubrication Specialist. Mr. Brittain has developed and instituted numerous training programs in maintenance procedures and techniques for rotating machinery.



Ben Carbonetto is the Engineering Manager with GE Oil&Gas CONMEC, in Bethlehem, Pennsylvania. He leads the Engineering Department to deliver custom physics-based upgrades and solutions for non-GE turbomachinery. His team is responsible for the design, construction, and testing of FCC hot gas expanders, centrifugal compressors, steam turbines, and axial compressors. Mr. Carbonetto's previous roles have been Expander/Axial Compressor Design Engineer, Senior Design Engineer, and Bladed Product Manager where his focus has been design, troubleshooting, operation, field commissioning, and failure investigation of the equipment.

Mr. Carbonetto received a B.S. degree (Mechanical Engineering, 1995) from Drexel University and is a member of ASME.



Charles H. (Chuck) Kostors is a consultant on rotating equipment with a specialty of FCC expanders. Previously he was a Senior Consulting Engineer with Elliott Turbomachinery Company. He was responsible for design aspects on turbine expanders, which encompassed the aerodynamic and mechanical design for the “dirty flue gas” environment of the fluid catalytic cracking process. Mr. Kostors has 40 years of design and troubleshooting experience with hot gas expanders. He has experience in all phases of turbomachinery design. Prior to joining Elliott, Mr. Kostors was involved in performance testing for a major utility, and was responsible for maintaining boilers, coal handling equipment, pumps, steam turbines, generators, and switch gear for the plant.

Mr. Kostors has a B.S. degree (Mechanical Engineering) from Carnegie-Mellon University. He has authored several technical papers and holds two patents. He is a Life Member of ASME and a member of PTC-6 Committee on Steam Turbines.



Robert M. Kranz is a Rotating Equipment Engineer for Phillips 66 Alliance Refinery, in Belle Chase, Louisiana. His primary duties are to develop and execute improvements to the refinery’s rotating equipment. He has been with the refinery for 15 years. During that time, some of his other duties included project engineering, inspection, and maintenance supervision.

Mr. Kranz obtained his B.S. degree (Mechanical Engineering, 1986) from the University of New Orleans. He is a registered Professional Engineer in the State of Louisiana.



George Seamon is a Principal Design Engineer for Dresser-Rand Company, in Olean, New York. For the last 20 years, he has been responsible for the aerodynamic and mechanical design and development of hot gas expanders for FCC and nitric acid service. Prior to that, he spent six years on the design of gas turbines and four years on the design of the GHH type hot gas expander. Before joining Dresser-Rand, Mr. Seamon worked for 10 years with General Electric and Pratt & Whitney on heat transfer, aerodynamic, and mechanical design of the turbine section of jet engines.

Mr. Seamon graduated with a BSME/AE degree from Northwestern University (1967).

DISCUSSION GROUP 6

on

DRY GAS SEALS



Peter C. Rasmussen, Coordinator, 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.

Bernard Quoix, **Coordinator**, is with TOTAL, in Pau, France.

Joe Delrahim is Marketing Segment Manager of Dry-Running Gas Seals with John Crane Inc., in Morton Grove, Illinois. Of his 24 years with John Crane, he spent 13 as an Engineer or Engineering Supervisor, in charge of designing dry-running gas sealing technology.

Mr. Delrahim holds a B.S. degree (Mechanical Engineering) from the University of Oklahoma, and an MBA from the Lake Forest Graduate School of Management, Illinois.

Norbert Holder is with Burgmann Industries GmbH & Co. KG, in Wolfratshausen, Germany.



John G. Marta is a Senior Compressor Seal Specialist with the Flow Solutions Division of the Flowserve Corporation, located in Littleton, Colorado. He is responsible for specifying compressor seal designs and support systems, and provides related field service for turbomachinery applications. First joining the heritage company of BW/IP International, Inc., Seal Division in 1988, Mr. Marta has held various positions within Flowserve including Applications Engineer; National Flue Gas Desulfurization Systems Coordinator; Sales Engineer; and Manager, Product Marketing, with responsibilities for application and design of low emission mechanical seal technology to meet stringent clean air regulations in the chemical, paper, petrochemical, power, and refining industries.

Mr. Marta holds a B.S. degree (Mechanical Engineering) from Colorado State University. He is a member of SME and ASME.



John S. Stahley is presently the Manager of Project Leadership at Dresser-Rand Company, in Olean, New York. He has been employed by Dresser-Rand for more than 17 years, holding various positions in manufacturing, marketing, project engineering, commissioning engineering, and project management. In his present position, he is responsible for project execution and support of Dresser-Rand turbomachinery during commissioning and throughout the equipment warranty period.

Mr. Stahley received a B.S. degree (Engineering, 1989) from the Rochester Institute of Technology and an MBA degree from St. Bonaventure University (1994).



Richard W. (Rich) Wilson is a Rotating Equipment Reliability Engineer for Valero's Delaware City refinery, and has served as a Senior Rotating Equipment Engineer since 1985. He is involved with all facets of rotating equipment in the plant including design, installation, operation, maintenance, and diagnostic evaluation of all refinery machinery. Since being assigned to the rotating equipment engineering group in 1979, Mr. Wilson has been involved with many equipment reliability improvements such as dry gas seal conversions, electronic governor upgrades, and tilt pad bearing retrofits. Mr. Wilson participated on a dry gas seal panel at University of Virginia's "Romag 91" Conference for Dry Gas Seals in March 1991, and presented a paper on dry gas seals at Saudi Refining's Rotating Equipment Technical Exchange meeting in October 1992.

Mr. Wilson has a B.S. degree (Mechanical Engineering) from University of Delaware. He is a member of ASME and the Delaware Valley Chapter of the Vibration Institute.

DISCUSSION GROUP 7
on
GAS TURBINE AND COMBINED CYCLES



Meherwan P. Boyce, Coordinator, 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.



Rainer Kurz, Coordinator, 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.



Mike Pepper is a Senior Mechanical Consultant (machinery) with ExxonMobil Production Company, in Houston, Texas. He has worked in the oil and gas industry for over 30 years and has been with ExxonMobil for 26 years. Mr. Pepper has gained expertise across a range of machinery aspects, including equipment design selection, purchase, testing commissioning, and operations support. During his career, he has worked in a range of challenging environments, including the North Sea, Qatar, Indonesia, and Nigeria.

Mr. Pepper's main field of expertise lies with operations and maintenance support of large turbine-driven compressor packages used in a variety of onshore and offshore services from LNG through high pressure sour gas injection. He is particularly interested in safely extending the runtime between turbine overhauls through product improvements and enhanced surveillance techniques. In his current role, Mr. Pepper provides leadership to ExxonMobil's global organization toward continuous improvement of machinery maintenance and reliability.

DISCUSSION GROUP 8

on

COUPLINGS AND ALIGNMENT



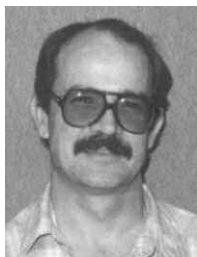
Terryl Matthews, Coordinator, is Senior Rotating Equipment Engineer with Shell Global Solutions (US) Inc., in Houston, Texas. He retired in 2003 from Dow Chemical, Design and Construction, after 30 years. His responsibilities at Dow included equipment selection, specifications, technical support, mechanical 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.



Thomas R. (Tom) Davidson, Coordinator, 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.



David E. Littlefield is a Senior Design Associate with Dow Chemical U.S.A. in Freeport, Texas. He joined Dow's Engineering and Construction Services Division in 1979, working primarily in the Rotating Equipment Group. He transferred to Texas Operations in 1983, where he has worked in the Mechanical Technology Group, troubleshooting and specifying rotating and general mechanical equipment.

Mr. Littlefield is a 1979 B.S. (Mechanical Engineering) graduate of Texas A&M University. He is a member of ASME and is a registered Professional Engineer in the State of Texas.



Joseph P. (Joe) Corcoran is the Global Manager of Services and Training for Kop-Flex, Emerson Power Transmission Corporation, in Baltimore Maryland. He is responsible for the repair and field services for all Kop-Flex products worldwide. Formerly, Mr. Corcoran was the High Performance Engineering Manager responsible for the processing group that selects, designs, and processes orders and inquiries for high performance and general purpose disc, diaphragm, and gear couplings, and torquemeters, mainly used in the turbomachinery market. He has 22 years of experience in power transmission and custom coupling design and field service at Kop-Flex, and he has authored and coauthored several lectures and papers on couplings.

Mr. Corcoran has a B.S. degree (Mechanical Engineering) from the University of Maryland. He is a member of the Vibration Institute and ASME, a member of the Task Force for API 671, and a member of the Work Group for ISO/DIS 10441.



Todd Stevens is with Shell Deer Park Refining Company, in Deer Park, Texas. He was previously a Principal Machinery Engineer for Equistar Chemicals, in Deer Park, Texas, where his responsibilities included unit reliability programs development. Mr. Stevens has been involved in equipment troubleshooting, repair, PM planning, turnaround planning, and project development and implementation.

Mr. Stevens received his B.S. degree (Mechanical Engineering, 1989) from Texas A&M University. He is a member of the Houston Chapter of the Vibration Institute and ASME.

DISCUSSION GROUP 9
on
PERFORMANCE TESTING



Meherwan P. Boyce, Coordinator, 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.



Douglas (Doug) Petrie, Coordinator, 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.

DISCUSSION GROUP 10

on GEARS



Clifford P. (Cliff) Cook, Coordinator, 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.



Kenneth O. (Ken) Beckman, Coordinator, 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.



Royce N. Brown is Consultant and owner of RNB Engineering, in Houston, Texas. He retired from Dow Chemical in 1995 after 28+ years. His responsibilities included specifications, instrumentation, controls, and consulting and field assistance for large rotating equipment. He has written 30+ technical papers, including a contribution to the ASM Handbook, *Friction, Lubrication, and Wear Technology*, and a book, *Compressors, Selection and Sizing*. Mr. Brown is a fellow member of ISA and ASME, a member of SME, AIChE, the Vibration Institute, and an associate member of SAE. He is a member of the API Subcommittee on Mechanical Equipment, and Task Force Chairman of API 616, API 617, and API 684.

Mr. Brown is a registered Professional Engineer in the States of Texas, Michigan, Louisiana, Wisconsin, and California. He has a B.S. degree (Mechanical Engineering) from the University of Texas, and an M.S. degree (Mechanical Engineering) from the University of Wisconsin.

DISCUSSION GROUP 11
on
RECIPROCATING COMPRESSORS



Robert F. (Bob) Heyl, Coordinator, 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.

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



Brian C. Howes is Chief Engineer for Beta Machinery Analysis, in Calgary, Alberta, Canada. He has been with Beta since 1972 and has performed troubleshooting services all over the world. Mr. Howes has many technical papers to his credit. The range of machinery problems they cover includes all manner of reciprocating and rotating machinery and piping systems, balancing and alignment of machines, finite element analysis, modeling of pressure pulsation, torsional vibration testing and modeling, flow induced pulsation troubleshooting and design, and pulp and paper equipment such as pulp refiners. He has also worked on hundreds of reciprocating compressor installations.

Mr. Howes has a M.Sc degree (Solid Mechanics) from the University of Calgary.

DISCUSSION GROUP 12
on
STEAM TURBINES



Steven Brewton, Coordinator, 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.



Vinod Patel, Coordinator, 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.



Donald R. (Don) Leger is Steam Turbine Product Manager for DRS Power Technology, Inc., in Fitchburg, Massachusetts. Prior to acquisition of PTI by DRS, he was Marketing Director, General Manager, and President of PTI Manufacturing Corp. Before joining PTI, he was Marketing Director and General Manager of the Chicopee facility for TurboCare.

Mr. Leger had 25 years with General Electric. His responsibilities covered mechanical drive steam turbines, feed pump turbines, and industrial turbine generator sets. He has 29 years of experience in steam turbine design, manufacturing, and project management. During his career, he has authored many papers on steam turbine applications and design and has presented at technical seminars throughout the world. Mr. Leger also served on the API 612 and ISO Working Group for special purpose steam turbines. He is a past member of the Turbomachinery Symposium Advisory Committee.

Mr. Leger has a B.S. degree (Mechanical Engineering) from Northeastern University.

DISCUSSION GROUP 13
on
MAGNETIC BEARINGS



Gampa I. Bhat, Coordinator, 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.



Hans Weyermann, Coordinator, 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.

DISCUSSION GROUP 14
on
DRY SCREW COMPRESSORS



Donald R. Smith, Coordinator, 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.



John K. Whalen, Coordinator, 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.



Kevin Kisor is an Applications and Sales Engineer in MAN Turbo's Houston office. He has held various sales and application engineering positions with Sundyne, A-C Compressor, Nuovo Pignone, and GHH Borsig, and has served on the API 614 Task Force.

Mr. Kisor has a B.S. degree (Industrial Technology) from Ohio University.

Charles (Chuck) Nagengast is with BP Gulf of Mexico Production Company, in Houston, Texas.



Perry L. Robins is a Senior Mechanical Engineer with The Dow Chemical Company, Dow Design and Construction Division, in Houston, Texas. His responsibilities since joining Dow (1992) have been mechanical lead for capital project teams, and, for the last three years, in the Rotating Equipment Group providing support for critical compressor and pump applications. Current duties include specifications, technical support, equipment testing, and field support.

Mr. Robins has a B.S. degree (Mechanical Engineering, 1991) from New Mexico State University.

DISCUSSION GROUP 15
on
TURBOMACHINERY BEARINGS AND ANNULAR SEALS



Thomas R. (Tom) Davidson, Coordinator, 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.



John K. Whalen, Coordinator, 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.

DISCUSSION GROUP 16
on
INTEGRALLY GEARED COMPRESSORS



Kenneth O. (Ken) Beckman, Coordinator, 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.



Stanley Stevenson, Coordinator, 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.

Carl L. Schwarz is Chief Engineer, Turbomachinery for Praxair at the Praxair Technology Center, in Tonawanda, New York. He is responsible for the design and development of specialized turbomachinery. Previously, Mr. Schwarz was with Atlas Copco Compressors Inc. for 16 years where his responsibilities were with design, development, manufacturing, and testing of integrally geared compressors for the air and process gas industries. Positions previous to this were with Sulzer Turbosystems and Pratt and Whitney Aircraft.

Mr. Schwarz graduated from Union College, Schenectady (1975), and has been active on the API 617 Task Force (Seventh Edition) as well as the European Industrial Gas Association (EIGA) committee for revising the Code of Practice for Oxygen Compressors (Sixth Edition).

DISCUSSION GROUP 17
on
HIGH PRESSURE CENTRIFUGAL COMPRESSOR STABILITY



Michael J. Drosjack, Coordinator, 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.



Peter C. Rasmussen, Coordinator, 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.



John A. Kocur, Jr., is a Machinery Engineer in the Plant Engineering Division at ExxonMobil Research & Engineering, in Fairfax, Virginia. He has worked in the turbomachinery field for 20 years. He provides support to the downstream business within ExxonMobil with expertise on vibrations, rotor/aerodynamics, and health monitoring of rotating equipment. Prior to joining EMRE, he held the position of Manager of Product Engineering and Testing at Siemens Demag Delaval Turbomachinery. There Dr. Kocur directed the development, research, engineering, and testing of compressor and steam turbine product lines.

Dr. Kocur received his BSME (1978), MSME (1982), and Ph.D. (1991) from the University of Virginia and an MBA (1981) from Tulane University. He has authored papers on rotor instability and bearing dynamics, lectured on hydrostatic bearings, has been a committee chairman for NASA Lewis, and is a member of ASME. Currently, he holds positions of API 617 Vice-Chair and API 684 Co-Chair.



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.



Alberto Tesei is General Manager, Technology Commercialization, with GE Oil&Gas, in Florence, Italy. He has been involved in the machinery industry for more than 35 years. Mr. Tesei began his career in turbomachinery with Nuovo Pignone in centrifugal compressor designing, troubleshooting, and R&D. He has held various management positions within the company such as Centrifugal Compressor Chief Engineer, General Manager Gas Turbines, and General Manager Mid-Stream Division.

Mr. Tesei graduated (Mechanical Engineering) from the University of Rome.

