Agenda for 2004 Conference

Wednesday, October 20, 2004

#	Day	When	Author(s)	Affiliation	Title
		10:00			**Registration Starts & Exhibits Open**
		11:45 – 1:15			**Lunch & Conference Start**
04A1	Wednesday	1:30 – 2:15	Z. Vostry	SIMONE Research Group s.r.o.	New Leak Detection and Localization Method The effect of a new leak detection and localization method is analyzed and demonstrated by a series of experiments on trunk line where compressor station flow rates are not measured. The software will be installed on Russian company (transmission 70 bcm/yr, 5000 km (looped), 23 compressor stations) on the end of 2004 for on-line use.
04A2	Wednesday	2:25 – 3:10	Dr. Gerhard Geiger Berthold Bollermann Ralf Tetzner Helmut Dunker Herman Hofstede	University of Applied Sciences, Gelsenkirchen KROHNE Oil and Gas	Leak monitoring of an Ethylene Gas Pipeline This paper describes design, implementation and test of an extended real-time transient model based leak detection system for an ethylene gas pipeline.
		3:10 – 3:30			**Break**
04A3	Wednesday	3:30 – 4:15	Alexsander Moreira Alves Valeriano	TBG - Bolivia-Brazil Pipeline, Brazil	Use of Integrated Systems and Data Exchange This paper discusses the use of an integrated system to manage all phases between nominations and allocations, including planning dispatch and marketing. The same system also provides leak detection and an online simulator that is integrated to SCADA system.
04A4	Wednesday	4:25 – 5:10	Dr. S. Iourtchenko Dr. A. Losenkov	Energoavtomatika Ltd	The Leak Detection Problem For an Artificially Created Leak Leak detection when a leak is artificially created in a pipeline is discussed.

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		6:00 – 7:30			Reception
04B1	Wednesday	1:30 – 2:15	Kevin J. Rittie	Telvent	Interfacing Pipeline Simulators to Real-time Control Systems Integration of pipeline simulation systems to real-time control systems is an important challenge in today's real-time information business. This paper will address the issues of interface architectures, data exchange requirements, redundancy, historical and alarm interfaces, and visualization components in order to provide a framework upon which technical decisions may be made as part of a comprehensive integration plan.
04B2	Wednesday	2:25 – 3:10	Bill Chmilar Gene Poissant	TransCanada PipeLines Limited	Data Management and Exchange In a Pipeline Simulation Environment This paper and presentation explores the business and process requirements that shape the pipeline simulation environment at TransCanada PipeLines. The available IT technologies that enabled and supported the creation of the environment, such as inherent database functionality and communication protocols including XML, will be discussed along with the functionality that has been provided to the user. Further, the portability and possible extension of the resulting functionality will also be explored.
		3:10 – 3:30			Break
04B3	Wednesday	2:25 – 3:10	Dr. Jan Mohring Dr. Jochen Hoffmann Thomas Halfmann Dr. Aivars Zemitis	Fraunhofer Institute for Industrial Mathematics, Ventspils University College	Automated Model Reduction of Complex Gas Pipeline Networks A systematic and automatic methodology using symbolic techniques for deriving a simplified hydraulic model of a pipeline network from a detailed complex model is presented. Such models may be applied at the interface among transmission system operators (TSO) and network users for a quick check of physical feasibility within a certain accuracy. This methodology has been successfully applied to the pipeline network of a European TSO.

04B4	Wednesday	4:25 – 5:10	Pavel Reinstein	SIMONE Research Group s.r.o.	Using GIS Information to Build Pipeline Model This paper describes the integration of simulation software with geographic information systems. The aim of this paper is to inform about some experiences with several projects using GIS data to build network models.
		6:00 – 7:30			**Reception & Exhibits Open**

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Thursday, October 21, 2004

		8:00 – 8:45			**Conference Start**
0401	Thursday	8:45 – 9:30	Dale R. Rusnak E. Philip Ferber	Dominion Transmission	Automated Pipeline Optimization (APO) for Nominations Management & Compressor Fuel Minimization A demonstration of a static model to minimize compressor fuel usage in Dominion's Gas Transmission system: highlighting measured savings, semi-automated calibration techniques and an "Expert System" employed to attain fuel minimization in transient operations - an approach to transient optimization.
0402	Thursday	9:30 – 10:15	Dr. Lars Hagesæther Dr. Ronny Albrechtsen Ronny S. Bruvold Willy Postvoll	Statoil Natural Gas Statoil Exploration & Production GASSCO	Rich Gas Pipeline Operations During Tail-end Production The multiphase pipeline from Huldra to Heimdal will represent an increasingly difficult operational challenge during the tail-end production phase as the throughput is reduced gradually. A project was initiated to identify possible options to extend the lifetime of Huldra. The key results from this project, mostly based on multiphase flow analysis using the OLGA2000 simulation tool, will be presented, discussed and compared to operational experience.
		10:15 – 10:30			**Break**
0403	Thursday	10:30 – 11:15	Dr. Ivor R. Ellul Geir Saether Mack Shippen	Knowledge Reservoir Schlumberger	The Modeling of Multiphase Systems under Steady-State and Transient Conditions – A Tutorial This tutorial focuses on the complex analysis of multiphase flow in pipelines with emphasis on currently available modeling tools. Case studies will be selected and simulated in "real time" to engage the audience in the modeling process.
0404	Thursday	11:15 – 12:00	Odilia Dauzacker, Marcos Jose William Fernandez Anthony Collins	Petrobras Energy Solutions International	Real Time Commercial Supervision at Petrobras This presentation discusses the implementation of a real-time model and gas transaction management system for the gas shippers at Petrobras. The integrated system provides Petrobras with the capability to schedule, consolidate, allocate, and provide detailed energy and volume information for invoice generation and provides real-time supervision of the shipper contracts.
		12:00 – 1:15			**Lunch**

0405	Thursday	1:15 – 2:00	Sidney Pereira dos Santos	Petrobras	Series or Parallel Arrangement for a Compressor Station? A Recurring Question that Needs a Convincing Answer This presentation brings back the attention to the compressor station arrangement under a transient analysis as part of a real transportation system with a practical approach.
0406	Thursday	2:00 – 2:45	Dr. Jason Modisette	Atmos International	Better Automatic Tuning of On-Line Models This presentation reports on a new method of tuning pipeline models that simultaneously considers SCADA and model results from a large time span to find the best physical explanation for SCADA/model discrepancies. This approach allows better error compensation than traditional tuning methods.
		2:45 – 3:15			**Chairman's Session**
		3:15 – 3:45			**Break**
0407	Thursday	3:45 – 4:00	PSIG Standards Committee		Update on PSIG Standards Initiative This paper will give an update on the status of the PSIG standards initiative and a demonstration of the portions of the XPLS which are available for review.
0408	Thursday	4:00 – 4:45	Rainer Kurz	Solar Turbines, Inc.	The Physics of Centrifugal Compressor Performance This presentation explains the physical background of the working principles and the operational behavior of centrifugal compressors, as well as important subsystems such as seals and surge control.
		6:00 – 7:30			**Reception**

Friday, October 22, 2004

		8:30			Start
0409	Friday	8:30 – 9:15	Dr. Jerry L. Modisette	Consultant	Lagrange – A Pipeline Flow Model Based on Points Moving with the Fluid This paper describes the procedures for a transient pipeline simulation based on moving fluid elements, discusses the practical advantages and disadvantages, and compares the results with conventional fixed coordinate systems.
0410	Friday	9:15 – 10:00	Prakash Krishnaswami Kirby S. Chapman, Mohammad Abbaspour	NGML, Kansas State University	Compressor Station Optimization for Line pack Maintenance Maintenance of specified line pack is an important aspect of pipeline operation. This paper describes a systematic optimization method for minimizing fuel consumption in the compressor stations along a natural gas pipeline while meeting desired line pack and pressure limit specifications. The results obtained indicate that this is an effective and practicable method for improved operation of the pipeline network.
		10:00 – 10:30			**Break**
0411	Friday	10:30 – 11:15	Mike Avella Darin Jones John Korta Daven Phelan	Pacific Gas & Electric	Pipeline Model Loading – An Integrated and Automated Approach This presentation involves the discussion and presentation of a software application created at Pacific Gas and Electric to simplify and automate many of the tasks involved with loading gas transmission models. The application has resulted in reduced model update time and improved model accuracy.
0412	Friday	11:15 – 12:00	Aditya Singh María S. Benavides Clay Pinder Bob Gilmore Richard Silber	Paragon Engineering Services Columbia Gas Transmission Corp.	In-depth Flow Assurance Analysis of Cross-Country Gas Pipelines Facilitates Operations Management and Control Ongoing fluids gathering and handling concerns at compressor stations through in-depth flow assurance analysis is described.
		12:00			**Conference Close**