

**Wednesday 30th November 2011**

<b>08:15 - 09:00</b>	<b>Registration - Swallow House first floor</b>		
<b>09:00 - 09:10</b>	<b>BHR Group Introduction</b>		
<b>09:10 - 09:40</b>	<b>Opening Key Note - "Energy Legislation , Unnecessary Bureaucracy or a Business Opportunity?"</b>		
	<b>Steve Schofield - British Pump Manufacturers Association Ltd</b>		
<b>09:40 - 10:40</b>	<b>Session 1:</b>	<b>Packing</b>	<b>Page No.</b>
	<b>Chairman:</b>	<b>Bob Flitney, Sealing Technology</b>	
	<b>Mechanical packing emissions test standards – which one to use?</b>		<b>5</b>
	<i>P Mahoney, H Azibert, A.W. Chesterton Company, USA</i>		
	<b>The development of a standard test procedure for packings in rotary applications</b>		<b>17</b>
	<i>D Edwin-Scott, European Sealing Association (ESA), UK; D Fribourg, Centre Technique des Industries Mécanique (CETIM), France</i>		
<b>10:40 - 11:10</b>	<b>Refreshment break</b>		
<b>11:10 - 12:40</b>	<b>Session 2:</b>	<b>Mechanical Seals - Part 1</b>	
	<b>Chairman:</b>	<b>Henri Azibert, Chesterton Company</b>	
	<b>Improving reactor coolant pump seal reliability at Dominion Surry nuclear power station</b>		<b>33</b>
	<i>G van Loenhout, Flowserve Flow Solutions Group, The Netherlands; A J Olson, Flowserve Flow Solutions Group, USA; J R Olliver, Dominion Generation Surry Nuclear Station, USA</i>		
	<b>Special split seal design for hydropower turbine</b>		<b>51</b>
	<i>M Lefrançois, J-J Darqué, S Guignard, L Guimet, G Tocheport, Garlock, France</i>		
	<b>Design of mechanical seals for hygienic and aseptic applications</b>		<b>61</b>
	<i>G Anderberg, Huhnseal AB, Sweden</i>		
<b>12:45 - 14:00</b>	<b>Lunch</b>		
<b>14:00 - 15:30</b>	<b>Session 3:</b>	<b>Static Seals</b>	
	<b>Chairman:</b>	<b>Russ Currie, Flexitallic</b>	
	<b>Formed-in-place gaskets – when reliability in operation meets economic advantage</b>		<b>117</b>
	<i>C Simader, J-P Reibert, W Haas, Universität Stuttgart, Germany</i>		
	<b>Leak tightness of elastomeric O-rings for the transportation of radioactive material</b>		<b>129</b>
	<i>S Momon, R Marlier, TN International (AREVA Group); D Fribourg, J Pioger, B Omnes, Y Birembaut, CETIM, Technologie de l'Etanchéité, France</i>		
	<b>Long-term elastomer seal tests and their use in optimising maintenance intervals</b>		<b>141</b>
	<i>A F George, EDF Energy, UK</i>		
<b>15:30 - 16:00</b>	<b>Refreshment break</b>		
<b>16:00 - 18:00</b>	<b>Session 4:</b>	<b>Reciprocating Seals</b>	
	<b>Chairman:</b>	<b>TBC</b>	
	<b>Sealing water-based fluids</b>		<b>155</b>
	<i>N A Peppiatt, Hallite Seals International Ltd., UK</i>		
	<b>FE-Analysis and optimisation of an oil scraper seal to take up the misalignment of the sliding rod</b>		<b>NIP</b>
	<i>B Omnes, Y Goerger, CETIM, Centre Technique des Industries Mécaniques, France</i>		
	<b>Effects of metal counter surfaces on friction and wear of polymeric seal materials in hydrogen</b>		<b>167</b>
	<i>T Morita, F Sato, Y Sawae, J Sugimura, Kyushu University, Japan</i>		
	<b>Analysis of the lubricant film thickness on rod seals by application of the fluorescence method</b>		<b>179</b>
	<i>K Ottink, G W G Poll, Leibniz Universität Hannover, Germany</i>		

## Thursday 1st December 2011

50<sup>th</sup>  
anniversary

09:30 - 10:00 **50th Anniversary celebration  
presentation by Brian Ellis and Bob  
Flitney**

10:00 - 11:00 **Session 5: Mechanical Seals - Part 2** **Page No.**  
**Chairman: Bernard Tournier, Poitiers University**

**Ultra high pressure mechanical seals for CO2 injection pumps** **69**  
*N Necker, M Wieland, EagleBurgmann, Germany*

**The effect of real gas on the performance of the spiral groove dry gas seal** **79**  
*P Song, Kunming University of Science and Technology, China*

**11:00 - 11:30 Refreshment break**

11:30 - 13:00 **Session 6: Rotary Shaft Lip Seals**  
**Chairman: Richard Salant, Georgia Institute of Technology**

**An experimental and theoretical study of the effect of lip surface roughness on lubrication of radial lip seals** **193**  
*H Mizuta, NOK Corporation; J Sugimura, Kyushu University, Japan*

**Modelling radial lip seal friction – a multi-scale mixed lubrication approach** **207**  
*B Wennehorst, T Engelke, G W G Poll, Leibniz Universität Hannover, Germany*

**Experimental study of PTFE lip seals with spiral grooves** **227**  
*M Chiad, A Fatu, M Hajjam, CNRS – University of Poitiers, France*

**13:00 - 14:15 Lunch**

14:15 - 15:15 **Session 7: Mechanical Seals - Part 3**  
**Chairman: Roger Hill, Flowserve**

**Improvement in sealing performance and friction reduction by laser surface texturing for mechanical seal** **91**  
*Y Tokunaga, H Inoue, K Okada, N Uemura, Eagle Industry Co., Ltd.; Y Yamamoto, Professor emeritus of Kyushu University, Japan*

**On the roughness induced hydrodynamic pressure in mechanical face seals** **103**  
*N Brunetière, B Tournier, C Minet, CNRS – Université de Poitiers, France*

**15:15 - 15:45 Refreshment break**

15:45 - 17:15 **Session 8: Polymer Seals**  
**Chairman: Brian Ellis, European Sealing Association**

**Elastomer compatibility to a gasoline standard containing intermediate levels of ethanol** **263**  
*Michael D. Kass, Tim Theiss, Chris Janke and Steve Pawel Oak Ridge National Laboratory, J. Tom Chapin, Tom Fabian, H. Yang, and Ken Boyce Underwriters M D Kass, T Theiss, C Janke, S Pawel, Oak Ridge National Laboratory; T Chapin, T Fabian, H Yang, K Boyce, Underwriters Laboratories, USA*

**When the customer has a problem, a year in the life of a consultant** **249**  
*R K Flitney, Consultant, UK*

**Nano/micro-scale structural properties of dynamic polymeric seals** **239**  
*A Thatte, Z Parlak, F L Degertekin, R F Salant, Georgia Institute of Technology, USA*

**17:45 Close of Conference**