

## Papers presented at PCIC International Subcommittee Sessions:

### 2001 Toronto (Panel discussions)

#### PANEL DISCUSSION #1

##### **RISK ASSESSMENT AND AREA CLASSIFICATION (GAS ATMOSPHERES) PROCEDURES IN CHEMICAL PLANTS IN EUROPE**

- Dr. Klaus de Haas - BASF AG, Germany  
Dr. Heribert Oberhem - Bayer AG, Germany  
Volker Pandel - InfraServ GmbH & Co., Germany

#### PANEL DISCUSSION #2

##### **COMPARISON OF CLASSIFICATION PROCEDURES FOR OFFSHORE OIL & GAS PRODUCTION FACILITIES IN THE USA USING THE ZONE CONCEPT**

- James D. Cospolich - Waldemar S. Nelson & Co., Inc., USA  
Francis Stone - Shell Exploration and Production Co., USA

#### PANEL DISCUSSION #3

##### **INSTALLATION AND WIRING METHODS IN CHEMICAL PLANTS IN EUROPE**

- Dr. Heribert Oberhem - Bayer AG, Germany  
Dr. Klaus de Haas - BASF AG, Germany  
Volker Pandel - InfraServ GmbH & Co., Germany  
Gerhard Schwarz - CEAG Sicherheitstechnik GmbH, Germany

### 2002 New Orleans (Panel discussions)

#### PANEL DISCUSSION #1 (PCIC-2002-37)

##### **CONVERTER-FED MOTORS FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES**

- Frank Lienesch - Physikalisch-Technische Bundesanstalt, Germany  
Clife Hermanowski - CEAG, Germany  
Lutz Metzky - BASF AG, Germany

#### PANEL DISCUSSION #2 (PCIC-2002-38)

##### **ZONES VERSUS DIVISIONS: A COMPARATIVE ANALYSIS OF NEC ARTICLE 500/505 EQUIPMENT AND WIRING METHOD IN A PETROCHEMICAL FACILITY IN THE UNITED STATES**

- David Stewart - Waldemar S. Nelson & Co., USA  
Francis Stone - Shell International E&P, USA

#### PANEL DISCUSSION #3 (PCIC-2002-39)

##### **COST SAVINGS PRACTICES FOR MAINTENANCE IN EUROPEAN CHEMICAL PLANTS USING NEWEST INSTALLATION TECHNIQUES**

- Dr. Klaus de Haas - BASF AG, Germany  
Dr. Heribert Oberhem - Bayer AG, Germany  
Volker Pandel - Infraserve GmbH & Co., Germany

### 2003 Houston (Panel discussions)

#### PANEL DISCUSSION #1 (PCIC-2003-37)

##### **GLOBAL REGULATORY CLIMATE AS IT RELATES TO EXPLOSION-PROTECTED EQUIPMENT**

- Paul Kelly - Underwriters Laboratories Inc., USA  
Uwe Klausmeyer - Physikalisch-Technische Bundesanstalt, Germany  
Kerry McManama - Underwriters Laboratories Inc., USA  
Giovanni Hummel Borges - UL do Brasil, Brasil  
Jan Olesen - UL / Demko A/S, Denmark

PANEL DISCUSSION #2 (PCIC-2003-38)

**HOW SWISS CHEMICAL COMPANIES MAKE INSTALLATIONS IN CHINA**

Peter Thurnherr - Thuba Ltd, Switzerland  
Xu Jianping - NEPSI, China

PANEL DISCUSSION #3 (PCIC-2003-39)

**GLOBAL INSTALLATION OF INTRINSICALLY SAFE AND NON-INCENDIVE SYSTEMS**

Benjamin Schaefer - Underwriters Laboratories Inc., USA  
Giovanni Hummel Borges - UL do Brasil, Brasil  
David Malohn - Underwriters Laboratories Inc., USA

**2004 San Francisco (Papers presentation)**

PCIC-2004-40

**FACILITATING PLANT OPERATION AND MAINTENANCE USING AN ELECTRICAL NETWORK MONITORING AND CONTROL SYSTEM SIMULATION TOOL**

Terence Hazel - Schneider Electric, France  
Isabelle Condamin - Autofina, France  
Fabrice Audemard - Autofina, France

PCIC-2004-41

**STUDIES AND INDUSTRIAL APPLICATIONS FOR OIL FIELD PUMPS A SPECIAL BRUSHLESS SYNCHRONOUS MOTORS**

P. Ali-Zade - Near East University, Turkey  
K. Buruncuk - Near East University, Turkey  
K. Radjabli - Kema Consulting, USA  
H. Mammadov - Russian Eng. Acad. Science, Azerbaijan

PCIC-2004-42

**LIGHTING PRACTICES AND APPLICATIONS USE OF HID AND FLUORESCENT LIGHT IN HAZARDOUS AREAS**

Rend Ouendag - OGEE - Shell Global Solutions, Netherlands  
Gerhard Schwarz - Cooper Crouse-Hinds, Germany  
Rainer Eglinsky - Cooper Crouse-Hinds, Germany

**2005 Denver (Papers presentation)**

PCIC-2005-40

**SUMMARY OF INDUSTRY PRACTICES, GUIDES AND STANDARDS RELATED TO ON-LINE PARTIAL DISCHARGE MONITORING OF STATOR INSULATION CONDITION**

Vincent Green - ADWEL International Ltd., Canada  
Peter Kantardziski - ADWEL International Ltd., Canada  
Mladen Sasic - ADWEL International Ltd., Canada

PCIC-2005-41

**THE OPERATOR'S VIEWPOINT OF THE ATEX DIRECTIVE 94/9/EC - NEW REGULATIONS AND RULES FOR EXPLOSIVE ATMOSPHERES IN EUROPE**

Patrick Leroux - Total, France

PCIC-2005-42

**COMPARISON OF ZONE CLASSIFIED ELECTRICAL INSTALLATIONS IN THE U.S. AND EUROPE**

Robert Seitz - Artech Engineering, USA  
Wolfgang Berner - R. Stahl Inc., USA  
Heinz Bockle - R. Stahl Inc., USA  
Gerhard Bruchig - The Dow Chemical Company, Germany

## 2006 Philadelphia (Papers presentations)

PCIC-2006-40

### **SOFT START / ADJUSTABLE SPEED SYSTEMS FOR MULTIPLE MW RATED MOTORS**

Frieder Endrejat - Sasol Technology (Pty) Ltd., South Africa  
Pragasen Pillay - Clarkson University, USA

PCIC-2006-41

### **SAVING ON INSTALLATIONS IN HAZARDOUS AREAS**

Rainer Hillebrand - Cooper Crouse-Hinds GmbH, Germany  
Gerhard Schwarz - Cooper Crouse-Hinds GmbH, Germany

PCIC-2006-42

### **CRITICAL SPEED VERIFICATION OF 18,000 HP ADJUSTABLE SPEED DRIVE MOTORS FOR OFFSHORE PRODUCTION APPLICATIONS**

David Rains - WEG Electric, USA  
Carlos Bavastrri - UTFPR, Brasil  
Rogério da Silva Campos - Petrobras, Brasil  
Inam Haq - Dresser-Rand, USA  
Kazuo Shoji - WEG Industrias, Brasil  
Hideraldo dos Santos - WEG Industrias, Brasil

## 2007 Calgary (Papers presentation)

PCIC-2007-37

### **NON-ELECTRICAL EQUIPMENT FOR POTENTIALLY EXPLOSIVE ATMOSPHERES**

Peter Thurnherr - Thuba AG, Switzerland  
Gerhard Schwarz - Cooper Crouse Hinds, Germany  
Heribert Oberhem - Bayer Industry Services, Germany

PCIC - 2007-38

### **ASYNCHRONOUS SOLID ROTORS AS HIGH-SPEED DRIVES IN THE MEGAWATT RANGE**

Hartmut Walter - Siemens AG, Germany  
Axel Möhle - Siemens AG, Germany  
Maria Bade - Siemens AG, Germany

PCIC - 2007-39

### **LARGE MOTORS TO IEC ZONE 2 AND NEX/CEC DIVISION 2 - ARE THEY THE SAME?**

Bharat Mistry - GE Industrial Systems, Canada  
Travis Griffith - GE Oil & Gas, USA

## 2008 Cincinnati (Papers presentation)

PCIC – 2008–37

### **PURGED & PRESSURIZED MOTORS MADE TO IEC/NEC/CEC ZONE 1 (EX P) & TO NEC/CEC DIVISION 1 (TYPE X): ARE THEY THE SAME?**

Bharat Mistry - GE Consumer & Industrial, Canada  
William Lawrence - FM Approvals LLC, USA

PCIC – 2008–38

### **A COMPARISON OF INTERNATIONAL WIRING AND GROUNDING SYSTEMS WITH NORTH AMERICAN METHODS**

John Gardner - Appleton Electric Company, USA  
Joe Alanis - Bechtel Corporation, USA

PCIC – 2008–39

**ENHANCED COMMUNICATION BETWEEN FIELD DEVICES AND AUTOMATION SYSTEMS IN HAZARDOUS LOCATIONS**

Andre Fritsch - R. STAHL Schaltgeraete GmbH, Germany  
Robert Seitz - ASRC EnergyServices, USA

**2009 Anaheim (Papers presentation)**

PCIC – 2009-28

**LOW-VOLTAGE CIRCUIT PROTECTION IN HAZARDOUS LOCATIONS - A COMPARISON OF CODES AND STANDARDS WITHIN IEC, CEC AND NEC**

Wolfgang Berner - R. STAHL Inc., USA  
Juergen Poidl - R. STAHL Schaltgeraete, Germany  
Ken Martin - Brodwell Industrial Sales, Canada  
Mark Throckmorton - Shell Global Solutions, Canada  
Scott Basinger - Eaton Corporation, Canada  
Tim Driscoll - Shell Global Solutions, Canada

PCIC-2009-29

**A MULTIFUNCTION ENERGY SAVING DEVICE WITH A NOVEL POWEROFF CONTROL STRATEGY FOR BEAM PUMPING MOTORS**

Luo Yingli - North China Electric Power University, China  
Cui Xueshen - North China Electric Power University, China  
Luo Yu - North China Electric Power University, China  
Wang Yilong - Huadianzhixing Technology Development Corp, China  
Zhang Deqin - North China Electric Power University, China  
Zhao Haisen - North China Electric Power University, China

PCIC-2009-30

**CT SATURATION CALCULATIONS - ARE THEY APPLICABLE IN THE MODERN WORLD? - PART IV: CT SIZING AS PER IEC STANDARDS AND THE BENEFITS OF NON CONVENTIONAL INSTRUMENT TRANSFORMERS**

Pierre Bertrand - Schneider Electric, France  
Terence Hazel - Schneider Electric, France  
Michael Mendik - ABB Inc., USA  
Pascal Tantin - EDF R&D, France

**2010 San Antonio (Papers presentation in two sessions)**

PCIC-2010-10

**BALANCING FLEXIBLE ROTORS OF LARGE ELECTRICAL MACHINES**

Martin Regener - Siemens, Germany  
Lutz Huebner - Siemens, Germany

PCIC-2010-11

**MOTOR DESIGN CONSIDERATIONS FOR MEDIUM VOLTAGE ADJUSTABLE SPEED DRIVES IN HAZARDOUS AREAS**

Sami Kanerva - ABB, Finland  
Silvia Bono - ABB, Italy  
Bernhard Oberbauer - Borealis Polyolefin, Austria  
Holger Persson - ABB, Sweden  
Gerald Scheuer - ABB, Switzerland

PCIC-2010-12

**HARMONIZING VENTILATION REQUIREMENTS FOR INDOOR LIGHTER THAN AIR HAZARDOUS ATMOSPHERES**

Troy Rains - Fornax Consulting, Canada  
Bipin Satavalekar - Worley Parsons, Canada

PCIC-2010-31

**ACTIVE MAGNETIC BEARING SYSTEMS WITH STANDARD DRIVE TECHNOLOGY FOR LARGE TURBOMACHINES**

Hartmut Walter - Siemens, Germany  
Joachim Denk - Siemens, Germany  
Dietmar Stoiber - Siemens, Germany

PCIC-2010-32

**IEC 61850 CAPABILITIES APPLIED TO OIL AND GAS INDUSTRY**

Mohammad Aurangzeb - Areva, USA  
Bruno Andre - Areva, France  
Luc Hossenlopp - Areva, France

PCIC-2010-33

**INTERNATIONAL INSTALLATION METHODS BASED ON NEC AND IEC STANDARDS**

Gerhard Schwarz - Cooper Crouse-Hinds, Germany  
Peter Thurnherr - Thuba, Swiss  
Heribert Oberhem - Currenta, Germany  
Brian Keane - Cooper Crouse-Hinds, Canada

**2011 Toronto (Papers presentation in two sessions)**

PCIC-2011-22

**APPLYING IEC 60909, SHORT-CIRCUIT CURRENT CALCULATIONS**

David Sweeting - Sweeting Consulting, Australia

PCIC-2011-23

**THE POWER OF IEC61850 FOR BUS TRANSFER AND LOAD SHEDDING APPLICATIONS**

Lubomir Sevov - GE Digital Energy – Multilin, Canada  
Tony Zhao - Powell Industries, USA  
Ilia Voloh - GE Digital Energy – Multilin, Canada

PCIC-2011-24

**CLASSIFICATION OF HAZARDOUS AREAS PRODUCED BY MAINTENANCE INTERVENTIONS ON N.G. DISTRIBUTION NETWORKS AND IN PRESENCE OF OPEN SURFACE OF FLAMMABLE LIQUID**

Riccardo Tommasini - Politecnico di Torino, Italy  
Enrico Pons - Politecnico di Torino, Italy

PCIC-2011-37

**INTERFACES BETWEEN MV AND LV ASSEMBLIES AND POWER GENERATION FACILITIES IN PETROCHEMICAL PLANTS – A BRAZILIAN EXPERIENCE**

Luiz Felipe O. Costa - Eaton, Brasil  
Rogerio C. Barros - Eaton, Brasil

PCIC-2011-38

**HIGH EFFICIENCY HEATING METHOD FOR SUBSEA PIPELINES HEATING**

Philippe Angays - Technip, France

PCIC-2011-39

**THE INFLUENCE OF OFFSHORE AND SHIPBOARD CABLES STANDARDIZATION ON PLATFORM CONSTRUCTION GUIDELINES AND LOCAL MARKET**

Thiago Trezza Borges - Petrobras, Brasil  
Waldir de Melo Mota Junior - Petrobras, Brasil  
Michael da Fonseca Pinheiro - Petrobras, Brasil

## 2012 New Orleans (Papers presentation in two sessions)

PCIC-2012-10

### **GLOBAL COMPLIANCE OF ROOMS IN HAZARDOUS AREAS**

John Paul De Beer - Expo Technologies

PCIC-2012-11

### **POWER MANAGEMENT SYSTEM IN AN INDUSTRIAL PLANT**

Fernando Pacheco - Methanex Chile  
Daniele Pescosolido - Schneider Electric  
Hossam Refaat - Emethanex

PCIC-2012-12

### **IEEE STD 515-2011 ELECTRICAL RESISTANCE HEAT TRACING - THE NEXT STEP IN HARMONIZATION**

Rich Hulett - Thermon Manufacturing  
David (Dusty) Brown - Emerson Industrial Automation

PCIC-2012-46

### **VIBRATION & ROTOR DYNAMICS CONSIDERATIONS OF LARGE HIGH-SPEED MOTORS DRIVING COMPRESSORS IN OIL & GAS INDUSTRY**

Sumit Singhal - Siemens AG

PCIC-2012-47

### **EXTENDING MOTOR LIFE WITH UPDATED THERMAL MODEL OVERLOAD PROTECTION**

Daniel L. Ransom - Basler Electric Company  
Randy Hamilton - Basler Electric Company

PCIC-2012-48

### **TESTING LARGE ASDS**

Daniele Buzzini - ABB SpA  
Maurizio Zago - ABB SpA

## 2013 Chicago (Papers presentation in two sessions)

PCIC-2013-06

### **DIFFERENCES AND SIMILARITIES BETWEEN ANSI AND IEC CULTURES FOR MV ASSEMBLIES – THE BRAZILIAN EXPERIENCE**

Luiz Felipe O. Costa - Eaton Corporation  
Estellito Rangel, Jr. - Petrobras  
Jose M de Carvalho Fo.- UNIFEI-GEQEE  
Rogério C. Barros - Eaton Corporation

PCIC-2013-07

### **AREA CLASSIFICATION FOR EXPLOSIVE ATMOSPHERES: COMPARISON BETWEEN EUROPEAN AND NORTH AMERICAN APPROACHES**

Riccardo Tommasini - Politecnico di Torino  
Federica Palamara - Politecnico di Torino  
Enrico Pons - Politecnico di Torino

PCIC-2013-08

### **ELECTRICAL EQUIPMENT IN COLD WEATHER APPLICATIONS**

Brian Keane - Cooper Crouse-Hinds  
Gerhard Schwartz - Cooper Crouse-Hinds  
Peter Thunherr - Thuba Ltd

PCIC-2013-42

**CONCEPT, DESIGN AND TESTING OF 12 MW 9500 RPM INDUCTION MOTOR WITH OIL FILM BEARINGS FOR PIPELINE APPLICATIONS IN NORTH AMERICA**

Sumit Singhal - Siemens  
Hartmut Walter - Siemens  
Travis Tyler - Williams Gas Pipeline

PCIC-2013-43

**EVALUATION OF MOTOR DYNAMIC RESPONSE BY FORCED VIBRATION ANALYSIS**

Rafael Fialho - GE Motors  
Cornelis Filho - GE Motors  
Suresh Pinapati - GE Motors

PCIC-2013-44

**MACHINE VIBRATION AND DIAGNOSTICS: THE WORLD OF ISO**

Horst Kuemmler - Siemens AG  
Thomas Gross - DIN – Deutsches Institut fuer Normung  
Josef Kolerus - National Instruments Germany

**2014 San Francisco (Papers presentation in two sessions)**

PCIC-2014-25

**INFLUENCING FACTORS ON MOTOR VIBRATION & ROTOR CRITICAL SPEED IN DESIGN, TEST AND FIELD APPLICATIONS**

Raj Mistry - Siemens Industry, Inc.  
Bill Finley - Siemens Industry, Inc.  
Scott Kreitzer - Siemens Industry, Inc.  
Ryan Queen - Siemens Industry, Inc

PCIC-2014-26

**SYSTEM ANALYSIS OF COMPONENT OUTAGE IN ELECTRICAL LNG PLANT WITH VOLTAGE SOURCE INVERTERS**

Toshiyuki Fujii - Mitsubishi Electric Corporation  
Hiroyuki Masuda - TMEIC  
Yoshihiro Ogashi - TMEIC  
Takeshi Tachibana - TMEIC  
Masahiko Tsukakoshi - TMEIC

PCIC-2014-27

**TEN YEARS HIGH SPEED MOTORS WITH MASSIVE SHAFT – EXPERIENCE AND OUTLOOK**

Hartmut Walter - Yaskawa-Siemens A&D  
Horst Kuemmler - Siemens AG  
Axel Moehle - Siemens AG

PCIC-2014-40

**IEC 60079-14 - ELECTRICAL INSTALLATIONS DESIGN, SELECTION AND ERECTION**

Brian Keane - Eaton's Cooper Crouse Hinds  
Gerhard Schwarz - GSA Consulting  
Peter Thurnherr - thuba Ltd

PCIC-2014-41

**AREA CLASSIFICATION IS NOT A COPY AND PASTE PROCESS**

Estellito Rangel Junior - Petrobras  
Aurélio Moreira Luiz - Petrobras  
Hilton Leão de P. M. Filho - Petrobras

PCIC-2014-42

**CASE STUDY: SIMULTANEOUS OPTIMIZATION OF ELECTRICAL GRID STABILITY AND STEAM PRODUCTION**

Scott Manson	- Schweitzer Engineering Laboratories, Inc.
Matt Checksfield	- Powerplan Engineers Pty Ltd.
Peter Duffield	- Rio Tinto
Abdel-Rahman Khatib	- Schweitzer Engineering Laboratories, Inc