





Global Cathodic Protection Meet 2018

22-23 January, 2018
Crowne Plaza Delhi, Mayur Vihar Phase 1, New Delhi-110093















NACE International The World Corrosion Authority

NACE International was established in 1943 by eleven corrosion engineers from the pipeline industry as the "National Association of Corrosion Engineers." The founding engineers were originally part of a regional group formed in the 1930's when the study of cathodic protection was introduced.

Since then, NACE International has become the global leader in developing corrosion prevention and control standards, certification and education. The members of NACE International still include engineers, as well as numerous other professionals working in a range of areas related to corrosion control.

NACE also began broadening its scope during its formative years, expanding beyond a purely CP and pipeline focus to include oil and gas production, chemical processing, and refining industries, as well as other methods of corrosion control such as protective coatings and linings, chemical treatment, materials selection and design. Along with increasing public awareness and concern about the economic impact and deleterious effects of corrosion, resulted in growth of the NACE organization globally. Further, the international maritime organization recognised NACE as a NGO in it's 2007 council meeting. Today, the association (renamed NACE International-The Corrosion Society in 1993) has four areas and 80 sections in North America, four international areas with 62 sections, and a total of nearly 36,000 members from 130 countries. For more information please visit website www.nace.org

NACE International Gateway India Section

NACE International Gateway India Section (NIGIS) was established in 1992 and is one the largest and the most active sections of NACE International.

With more than 1,000 members, NIGIS has organized approximately 200 NACE certification courses which include the CIP, CP, O-CAT, PCS, Basic Corrosion, Direct Assessment,

Internal Corrosion for Pipelines, Nuclear Power Plant Training for Coating inspectors, Cororsion control in Refining Industry program. NIGIS has been annually hosting CORCON since 1995 and this event includes 150+ technical papers and 60+ exhibitors from the global corrosion industry. To commemorate Corrosion Awareness Day, NIGIS presents awards to individuals and institutions for their contributions to corrosion awareness and developments in the field of corrosion science and technology. The Gateway India Section sponsors two student chapters, one in each Mumbai and Chennai/Kalpakkam. In 2013, the first NACE student conference, CORSYM, was organized by the NIGIS South Zone Student Section. For more information please visit website www.naceindia.org



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As per NACE's 2016 IMPACT study, the cost due to corrosion to India's economy annually is 4.2% of GDP. It is estimated that between 15-35% of this costs can be saved by utilising the existing corrosion abatement technologies and by creating awareness on this issue.

In the quarterly "Jung Se Jung" workshops jointly hosted by NIGIS and GAIL, it was identified that issues faced by the pipeline operators today on Cathodic Protection (CP) need to be discussed in more details. This led to NIGIS organizing a theme based specific event for lifecycle of CP for the asset owners under the flagship of "Global Cathodic Protection Meet 2018".

The objective of the Global Meet is to clarify the fundamentals related to CP and put forward the best practices for the asset owners/industry. This meet is important for Cathodic Protection users, operators, designers, consultants and contractors/service providers.

This Global Cathodic Protection Meet, focuses on various aspects of cathodic protection, mainly for:

- 1. Cross Country Pipelines and Common Corridor issues
- 2. Specifications for CP Major Components
- 3. AC Interference, AC Corrosion and Mitigations
- 4. DC Interference and Mitigations
- 5. Plant and Above Ground Storage Tanks
- 6. External Corrosion Direct Assessment





- 7. Well Casings, Offshore Platforms, Jetties and Offshore **Pipelines**
- 8. Improve Quality of Services and Quality of Manpower in **Cathodic Protection Industries**
- 9. Interactive session by Panels



Partners

Federation of Indian Petroleum Industry (FIPI)

The Federation of Indian Petroleum Industry is an apex Society of entities in the hydrocarbon sector and acts as an industry interface with Government and regulatory authorities. It helps in resolution of issues and evolution of policies & regulations. It represents the industry on Government bodies, committees and task forces and has been submitting recommendations to the Government on behalf of the industry on various issues.

It aims to be the most effective and influential voice of the oil & gas industry to facilitate its development as a globally competitive industry in India that enjoys the respect and trust of the society.

U.S. Commercial Services (USCS)

The U.S. Commercial Services is the trade promotion arm of the U.S Department of Commerce's International Trade Administration. U.S. Commercial Services has trade professionals in over 100 U.S. cities and in more than 75 countries that help U.S companies start exporting or increase sales to new global markets.

Federation of Indian Chamber of Commerce and Industries (FICCI)

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies. FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

Panel for Interactive Session

Conference Chairman: Dr. Narendra Kumar

Conference Convener: Mr. Pankaj Panchal

International Invited Experts

- Mr. Hasan Sabri, KOC, Kuwait (SME- CP & Coatings, NACE)
- Mr. Shamus McDonnell-PureHM, Canada

- Mr. Christophe Baete, Elsyca, Belgium
- Mr. Ted Huck, Matcor, USA

Other Panelist would be experts and decision makers from the pipeline operators

Resource Persons

Experts from Oil & Gas Industry having vast experience.

Program Conceptualized by

Dr. Ashutosh Karnatak, Director (Projects), GAIL (India) Limited Dr. Narendra Kumar, ED (O&M-CO), GAIL (India) Limited Dr. Samir Degan, President (2017-2018), NACE International

Mr. Pankaj Panchal, SME-CP, NACE International

| Support Opportunites | | | |
|----------------------|----------------|--|--|
| Opportunity | Support in INR | | |
| Table - Display | 50,000 | | |
| Delegate Fees | 12,000 | | |
| Sponsorship | 2,00,000 | | |

Above Rates are exclusion of GST

Organising Committee

Mr. Abirami Krishnan, SME-CP, NACE International

Mr. A K Jha, DGM (Gas-O&M), GAIL (India) Limited

Mr. Anand Kulkarni, SME-CP, NACE International

Mr. Ashish Khera, SME-DA, NACE International

Mr. Craig Botha, SME-CP, NACE International

Mr. E S Ranganathan, MD, Indraprastha Gas Limited

Mr. G Chakraborty, CGM (O&M-CO), GAIL (India) Limited

Mr. K B Singh, Exec. Committee Member, NIGIS

Ms. Kim Shah, Staff Liason, NIGIS

Mr. M I Ammar, Sr.Mgr. (O&M-CIMG), GAIL (India) Limited

Mr. M K Sogani, GM (O&M-CO), GAIL (India) Limited

Mr. N Manohar Rao, Chairman, NIGIS

Mr. Sandip Vyas, Exec. Committee Member, NIGIS

Mr. S S Verma, CM (CIMG), GAIL (India) Limited

Global Cathodic Protection Meet 2018



22 & 23 January, 2018



Day-1: 22-01-2018 (Monday)

| TIME (HRS) CONFERENCE TOPICS | | | | |
|------------------------------|---|--|--|--|
| | | | | |
| 09:30-10:00 | Registration | | | |
| 10:00-11:00 | Inaugural Session | | | |
| 11:00-11:15 | Tea Break | | | |
| Technical Session I | | | | |
| 11:15-12:00 | Essential requirements & Challenges in effective CIPS, CAT & DCVG Surveys | | | |
| 12:00-13:00 | Part-1: Considerations for best technical specifications & installation practices of CP equipment (i) TR/CPPSM Units (ii) Anode/Anode Beds | | | |
| 13:00-14:00 | Lunch | | | |
| Technical Session II | | | | |
| 14:00-15:00 | Part-2: Considerations for best technical specifications & installation practices of CP system accessories (i) Polarization cells (ii) Surge Diverters (iii) Permanent Reference Cells & Polarization Coupons (iv) Isolating Joints | | | |
| 15:00-15:45 | ECDA - Practical approach towards effectiveness assessment | | | |
| 15:45-16:00 | Tea Break | | | |
| Technical Session III | | | | |
| 16:00-16:45 | Cased crossings: | | | |
| | Requirements - Codes/Standards, Current trends of cased crossings and rectification of shorted casings & way-forward | | | |
| 16:45-17:45 | Technical Interactive Session | | | |
| Networking Dinner | | | | |

Day-2: 23-01-2018 (Tuesday)

| TIME (HRS) | CONFERENCE TOPICS |
|-----------------------|--|
| Technical Session IV | |
| 09:30-10:30 | DC Interference due to HVDC, Traction, Foreign Pipelines, Telluric currents & its Mitigation |
| 10:30-11:15 | AC Interference study & Mitigation |
| 11:15-11:30 | Tea Break |
| Technical Session V | |
| 11:30-12:15 | Challenges of CP system in Common ROU |
| 12:15-13:00 | CP system for Plant piping, storage tanks and mounded bullets |
| 13:00-14:00 | Lunch |
| Technical Session VI | |
| 14:00-14:45 | CP System Design, Construction & Commissioning - Best Practices |
| 14:45-15:30 | Offshore CP protection - Pipeline, SPM, jetty & well casings |
| 15:30-15:45 | Tea Break |
| Technical Session VII | |
| 15:45-16:30 | Way forward in Improving the Quality of services being provided by CP Contractors |
| 16:30-17:15 | Technical Interactive Session |
| 17:15-17:30 | Concluding Session |





Global Cathodic Protection Meet 2018

REGISTRATION FORM

| For queries and to submit this form, email: kim.shah@nace.org | | | | |
|---|-----------|---|------------------------|--|
| NACE member number: | | Nonmember: 🗌 | First-time attendee: □ | |
| *Last name (surname): | | | | |
| *First name: | | | | |
| *Company name: | | | | |
| *Address: | | | | |
| | | | | |
| *City: | *St | tate: | | |
| *Postal code: | C | ountry: | | |
| *Phone number: | | Fax number: | | |
| *E-mail address: | | | | |
| *GST: | | PAN number: | | |
| | | | | |
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| | | | | |
| REGISTRATION CATEGORIES AND FEES (check the app | propriat | te box paid) | Regular Price | |
| Individual Delegate | | | □ ₹12,000.00 INR | |
| Table Display | | | □ ₹50,000.00 INR | |
| Sponsorship | | | □ ₹2,00,000.00 INR | |
| | | | | |
| PAYMENT INFORMATION: | | | | |
| Payments to be released in favour of CORCON | I INSTIT | TUTE OF CORROSION | | |
| BANK DETAILS: | | | | |
| Bank Details: HDFC BANK Account Branch: 0321, JUHU-JVPD SCHEME PAN Number: AAFCC5627H | | Current A/C No.: 50200 RTGS/NEFT IFSC: HDFC GSTIN: 27AFCC5627H1 | 0000321 | |

CIN Number: U91100MH2014NPL252716





| * MY COMPANY IS A(N): | PRODUCTION AND MANUFACTURING: | COMPANY FUNCTION: |
|--|--------------------------------------|--|
| ☐ Academia/R&D | ☐ Agricultural Equipment | ☐ Above Ground Storage |
| ☐ Asset Owner/Operator | ☐ Chemical/Petrochemical | ☐ Architectural/Design |
| ☐ Association | ☐ Electronics | ☐ Cathodic/Anodic Protection |
| ☐ Government/Regulatory Agency | ☐ Food Processing | ☐ Chemical Processing |
| ☐ Manufacturer/Supplier | ☐ Home Appliances | ☐ Coatings ☐ Concrete |
| ☐ Media/PR/Advertising Agency | ☐ Medical | ☐ Construction |
| ☐ Service Provider/Contractor | ☐ Mining | ☐ Contractor, Commercial Coatings |
| ☐ No Company Affiliation | | ☐ Contractor, Concrete Specialty and/or |
| | ☐ Oil and Gas Exploration/Production | Parking Structure |
| * MY COMPANY SERVES THESE | ☐ Pulp & Paper | ☐ Contractor, Flooring |
| * MY COMPANY SERVES THESE INDUSTRY SEGMENTS: | ☐ Refinery/Gas Processing | Contractor, General |
| (Select all that apply) | | ☐ Contractor, Industrial Plant or Military Facilities Maintenance |
| (School an instrupping) | GOVERNMENT: | ☐ Contractor, Insulation |
| INFRASTRUCTURE: | ☐ DoD—Military | ☐ Contractor, Roofing |
| ☐ Airports | ☐ Nuclear Waste Storage | ☐ Contractor, Sandblast/Waterblast/ |
| _ ' | ☐ Other/Industry Segment | Surface Prep |
| Gas and Liquid Pipelines | Not Listed | ☐ Contractor, Spray Bed Liner |
| ☐ Hazardous Material Storage | | Contractor, Structural Steel, Metal Tank and/or Pipeline |
| ☐ Highways/Bridges | * PRODUCTS I USE OR SELL | ☐ Engineering |
| Railroads | (Select all that apply): | ☐ Fleet Operator |
| ☐ Waterways and Ports | Abrasives | ☐ Inspection Services |
| ☐ Other Infrastructure | ☐ Adhesives | ☐ Insulation |
| | ☐ Application Equipment | ☐ Insurance |
| UTILITIES: | ☐ Cathodic/Anodic Protection | ☐ Legal Services |
| ☐ Coal | ☐ Chemical Inhibitors | ☐ Linings ☐ Maintenance/Rehabilitation |
| ☐ Electric | ☐ Coatings | ☐ Materials Selection & Design |
| ☐ Gas Distribution | ☐ Concrete | ☐ Measuring, Analyzing & Controlling |
| ☐ Nuclear | ☐ Data Recording and Management | Instrumentation |
| ☐ Solar | Equipment/Software | ☐ Metal Fabrication |
| ☐ Telecommunications | ☐ Inspection Equipment | ☐ Offshore |
| ☐ Water/Wastewater | ☐ Insulation | ☐ Onshore☐ Original Equipment Manufacturer |
| ☐ Wind | Linings | ☐ Power/Energy Distribution |
| □ Willia | ☐ Materials—Ferrous | ☐ Power/Energy Generation |
| TRANCROPTATION. | ☐ Materials—Nonferrous | ☐ Power/Energy Transmission |
| TRANSPORTATION: | ☐ Mechanical Equipment/Machinery | ☐ Rail Cars/Tank Trucks |
| ☐ Aerospace/Aircraft | ☐ Monitoring Equipment | ☐ Refining/Gas Processing |
| ☐ Automotive/Motor Vehicle | | ☐ Laboratory/Research |
| ☐ Hazardous Material Transport | ☐ Safety Equipment | ☐ Ship Building |
| ☐ Marine/Ships | ☐ Surface Preparation Equipment | ☐ Surface Preparation/Blasting☐ Testing Services |
| ☐ Railroad Cars | ☐ Testing Equipment | ☐ Training |
| ☐ Other Transportation | | ☐ Underground Storage |
| | | ☐ Water Domestic |
| | | ☐ Water Industrial |
| | | ☐ Wastewater Domestic |
| | | ☐ Wastewater Industrial |
| | | ☐ Wind |
| | | Other/Company Function Not Listed |

^{*}Denotes a required field.