



Under the Patronage of  
**H.E. Bakheet S. Al-Rashidi**  
Minister of Oil & Minister of Electricity & Water  
State of Kuwait

HOSTED BY



إحدى شركات مؤسسة البترول الكويتية  
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# GAS SWEETENING AMINE TREATING

10 - 11 MARCH 2019 | THE REGENCY HOTEL, STATE OF KUWAIT



Two Days Workshop

CONDUCTED BY



ORGANISED BY



## WORKSHOP DESCRIPTION

The training courses from Amine Experts are internationally renowned for the value addition to any job function that includes operating, modifying, servicing or managing an amine plant. This training course provides a thorough grounding in amine operational theory and field troubleshooting of amine systems in terms of meeting treated product specification, foaming and corrosion.

The amine treating course has been presented more than 300 times worldwide with more than 8000 engineers and operators benefitting from attending. A condensed version of the course, normally lasting a full week, is offered at the GPA GCC Conference in Kuwait for the direct benefit of attendees.

The course will be of immediate benefit to Plant Engineers, Operational Supervisors, Operators, Designers, Chemical Vendors and Facility Managers. Attendees from operating companies are recommended to bring relevant unit information like simplified EFD's and current and historic plant operating data. The course will be presented in an interactive format that allows for discussion with presenters and other attendees.

The information presented will be contained in a complete set of workshop notes that will be provided to every attendee.

## WORKSHOP OBJECTIVES

The workshop aims to impart a solid understanding of amine systems, the challenges that are encountered in reliably operating them and the tactics used to resolve these challenges. As such there is a strong focus on meeting treated product specification, foaming and corrosion. The course will equip attendees with the skills to perform first line troubleshooting on amine systems.

Additionally, the training will broaden the knowledge of attendees to include the different equipment, configuration and solvent options.

## POTENTIAL PARTICIPANTS

This is a practical operations-oriented course and as such production staff (Engineers, Plant Operators, Supervisors, Facility Managers) involved in the daily operation and troubleshooting of amine units will especially benefit from attending.

Due to its focus on troubleshooting this course will also be of benefit to personnel involved in commissioning or providing technical support to amine units. It could also benefit designers who would like to get an idea of what does and does not work in the field and the impact that design choices have on plant operation and reliability.

## WORKSHOP CERTIFICATE

Gas Processors Association – GCC certificate will be issued to all attendees.

# WORKSHOP PROGRAM

## Gas Sweetening Amine Treating

### Day 1

**Module 1 - Introduction to Amine Processing**

**Module 2 - Process Principles**

**Module 3 - Amine Chemistry and Solvent Selection**

**Module 4 - Equipment Review and Operation**

**Module 5 - Operating Conditions**

**Module 6 - Meeting specification**

**Module 7 - Loss Reduction and Amine Foaming Control**

**Module 8 - Degradation and Heat Stable Salts**

### Day 2

**Module 9 - Process Control**

**Module 10 - Amine Laboratory Analysis**

**Module 11 - Calculation of Key Parameters**

**Module 12 - Amine Based Tail Gas Treating (TGTU/SCOT)**

**Module 13 - Corrosion Control and Case Studies**

**Module 14 - Iron Supplied Friend or Foe**

**Module 15 - Plant Reliability**

# INSTRUCTOR



**Philip le Grange**  
Senior Treating Engineer

Working for Amine Experts, Philip has performed troubleshooting, optimizing, commissioning and training on the amine and sour water systems at over 50 production facilities across 24 countries. He has been in the oil and gas industry for 13 years and prior to consulting has worked in both Operating Engineer and Plant Designer roles for chemical solvent systems.

He has an excellent track record at resolving operational challenges and has authored papers and articles for Industrial & Engineering Chemistry Research, Laurence Reid Conference, GPA Conferences, Hydrocarbon Engineering, TCE Magazine and Sulphur Magazine. Philip is also an author of the textbook Amine Treating and Sour Water Stripping.

Philip enjoys sharing his wealth of practical field experience and in depth technical knowledge of Amine Treating and likes to create a dialog on the specific operating challenges faced by attendees during courses he instructs.

## For more information, Please contact:

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