HUMAN CAPITAL ASSOCIATES

(SKILLS & ORGANIZATION DEVELOPMENT CONSULTANTS)

Workshop on Practical Pump and Valve Technology

June25 - 29, 2018, Lagos & Port Harcourt

Also Available For In-plant Training

Note: You can register or download our 2018 calendar online @ www.humancapitalassociatesng.com

Program Overview:

This program is designed to expose participants to the different types of pumps and valves and their associated terminology, judge the suitability of different types of pumps and valves for their needs, and learn how to operate and maintain them for the benefit of their organizations. Centrifugal and positive-displacement pumps, packing, mechanical seals and sealing systems, bearings and couplings will all be discussed. Valves for isolation and valves for control will be addressed. The application of the different types of pumps and valves will be discussed along with their suitability for different operational duties. Operation, troubleshooting and maintenance will be dealt with in depth.

FOR WHOM:

This course is particularly aimed at operating personnel performing in oil & gas production as well as process and maintenance engineers. The course shall also be beneficial to other technical personnel who want to broaden their knowledge on the operations and maintenance of pumps and valves technology.

LEARNING OBJECTIVES:

At the end of this program, participants will be able to:·

§Have an understanding of the different types of pumps and their associated terminology

§Have an understanding of Centrifugal and positive displacement pumps, packing, mechanical seals and sealing systems, bearings and couplings

§Have an understanding of different parameters affecting the operation of valves

COURSE CONTENT

DAY 1: Pumping Systems
·Introduction, oPump Types and Terminology
oPump Performance (Centrifugal and Positive Displacement)
·Understanding Head, oTypes of Head: Friction, Pressure, Static & Velocity
oFriction in Valves, Piping & Fittings, oCalculating Actual Head in a System
·Cavitation in Pumps and Valves, oNet Positive Suction Head (NPSH)
oVapour and Gas Cavitation, oFlashing versus Cavitation

DAY 2: Pump Types
·Positive Displacement Pumps
oReciprocating Pumps, oReciprocating Pump Valves
oRotary Pumps – scroll and gear types
oFailure Mechanisms – identification and monitoring
·Centrifugal Pumps
oCentrifugal Pump Theory, oPump Components
oMatching Pumps with Drivers, oPerformance Analysis
oFailure Mechanisms – identification and monitoring

DAY 3: Achieving Pump Reliability
·Sealing Systems
oConventional Packing Glands, Mechanical Seals & Flush Plans
oSeal Failure Mechanisms, oMaintenance and Repair of Mechanical Seals
·Bearings – failure modes and how to extend life
oLubrication, oPlain Bearings, oAnti-Friction Bearings
·Couplings & Alignment
oCouplings, oAlignment & Balancing, oFoundations & Bedplates

DAY 4: Valves Technology
·Types of Valves (globe, gate, ball, plug, check)
·Flow Characteristics
oFlow through valves, oValve flow characteristics
oLinear, quick opening & equal
·Valve Sizing
oCalculating the correct Cv value
oSelecting Valve Size Using Valve Coefficient,
oCalculations for Correct Valve Selection
·Sealing Performance
oLeakage Classifications,,
oSealing Mechanisms,
oValve stem seals

LEARNING OBJECTIVES:

§Have the ability to select the right valve for the particular application and to perform the necessary calculation for valve sizing

§Have the ability to perform troubleshooting of systems involving valves

§Have the ability to decide on the right maintenance plan concerning different types of valves

COURSE CONTENT

DAY 5: Valves Troubleshooting & Maintenance
·High Pressure Drop
oPressure Recovery Characteristics, oFlow Choking, oHigh Velocities
·Water Hammer
oWhat causes water hammer?, oSolutions for water hammer
·Troubleshooting the Control & Isolation Valves
oReview of common faults, oDeveloping a Preventive Maintenance Plan
·Review of the Week & Wrap-Up

RESOURCE PERSONS

Engr. Ola Popoola B. Sc; M. Sc; MBA; R. Engr; FNSE; MNIM; FNIPSM
With over 30 year's meritorious working experience spanning the organic functions of management, Engr. Ola Popoola's profile include: Managing Director/CEO of Mechelectric Associates Limited, Apapa - project managers. Senior Consultant on Process Design and SHE matters at FPSO Oil & Gas Operations. Former Group Technical Manager of Aeromaritime Group of Companies, Nigeria. Former Group Technical Manager of GAC, Nigeria Former Maintenance/Production /SHE Engineer at Shell Petroleum Development Company, Western Operation Warri. Engineer Popoola will be joined by other maintenance professionals to bring their experiences to bear on this program.

WORKSHOP FEE:

N200,000 per participant, VAT - N10,000
***Note:* this covers Workshop Fee, Full Break fast, Lunch, course materials and certificate of attendance.**
Payment should be made in favour of Human Capital Associates.
Payment can equally be made into our Accounts:
Account Name : Human Capital Associates
Keystone Bank Ltd. Account No:1005378262
Union Bank Of Nig. Plc Account No: 0006208533

LOCATIONS

1 - HCA Learning Centre.
Acme House 2nd Floor,
23 Acme Road Ogba, Ikeja - Lagos
June25 - 29, 2018
2 - MAAS Central Hotel,
PortHarcourt
June25 - 29, 2018
Open Course Fee:N200,000

FOR BOOKING/INQUIRIES:

Please Contact:
Office Lines:0814-574-5664
0811-749-1970
Otunba: 0806-622-3343
Philip: 0802-917-0491
0806-893-3608
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Note: *Human Capital Associates reserves the right to alter dates, content, venue and trainer.*

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Note: Please confirm participation in writing or call Human Capital Associates lines for reservation.

Program commences 9:00a.m.each day with Breakfast

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