

# Workshop on Maintenance and Reliability Best Practices

May 13 – 17, 2024, 1<sup>st</sup> Run: Lagos & Abuja November 11 – 15, 2024, 2<sup>nd</sup> Run: Lagos & Port Harcourt

> For Tutor -Led Class: 9am – 4:30pm Workshop fee: N300, 000 per Participant For online: Delivery via Zoom Online course fee: N250, 000 per Participant Available for In-plant Training

600 U\$D for foreign Participants

#### **Program overview:**

Maintenance & Reliability Best Practices are critical for every successful company. This program will focus on many practical and new Maintenance and Reliability Best Practices concepts and tools. Participants will be exposed to these concepts and practices using practical tools in case studies and discussion groups. The costs associated with equipment downtime and reduced production can be significant. Learning how to effectively manage all aspects of your industrial facility is a must. This workshop is a combination of instructor lead topic areas and class discussions. Interactive discussions will allow you to hear and learn best in class applications relating to maintenance planning and cost management strategies. You will have the opportunity to ask lots of questions in order to consider how best to apply these tools and techniques as you get back to your organization.

#### For whom:

This course is particularly aimed at operating personnel performing in oil & gas, manufacturing as well as process and maintenance engineers. The course shall also be beneficial to other technical personnel who want to broaden their knowledge on maintenance and reliability best practices.

## Learning objectives:

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

- evaluate and justify your maintenance programs using: Value = Benefit Cost;
- apply Life Cycle cost and risk planning to your facility assets;
- target Maintainability and/or Reliability in the development of your facility maintenance plans;
- learn the PLAN, DO, REVIEW cycle of continuous improvement;
- apply the theory of this session using practical case studies; and
- practice using improvement techniques.

# **Course outline:**

#### **Day 1 - Asset Cost Management Introduction**

- Definitions of reliability, maintenance & asset management
- The total cost of maintenance,
- Best practice reliability and maintenance processes
- Elements of asset management best practice,
- Auditing performance
- Overview of TPM, RCM, BCM, QCM, and other asset management strategies

## Day 2 - Laying the Groundwork

- Team-work maintenance, operations, stores
- The importance of standards such as PAS 55, JA1011

- Corporate asset management expectations,
- Asset performance expectations
- The forms of asset failure and degradation
- The causes and nature of asset failure and degradation
- The effects, cost and risks of asset degradation,
- Practical Application and discussion.

# Day 3 - Applying the Value based Process

- Breaking the cycle of failure and degradation
- Select PM tactics on the basis of costs and risks,
- How to determine PM intervals
- Condition based maintenance types and the PF-curve
- The four important reliability functions,
- Implementing best practice maintenance programs,
- Optimizing spares to support the maintenance program
- Maintenance program cost and risk based justification
- Practical Application

# Day 4 - Ensuring the Continuity of the Value-based Process

- Complete the PLAN, DO, REVIEW Improvement cycle with FRACAS
- Failure Reporting, Analysis and Corrective Action System requirements
- Structure and code data collection to support reliability analysis
- How to quantify chronic failures and losses
- Use Pareto analysis and stratification to focus the value-based analysis
- Quantify losses in life cycle terms,
- Reliability Analysis Case Study,
- Hypothesise root causes of failure and verify on the basis of evidence
- Discussion of software and templates to support analysis

## Day 5 - Supporting Process that Lower Life-cycle costs

- Planning and scheduling best practice,
- Cost effective man-power and skills deployment,
- Performance indicators to drive continuous improvement.
- Overall review of concepts learned

#### LOCATIONS

- 1 HCA Learning Centre. Acme House 2nd Floor, 23, Acme Road, Ogba, Industrial Scheme, Ikeja, Lagos, Nigeria
- 2 Green-Minds Hotel, Plot 764, Cadastral Zone B05, E. Ekukinam Street, Utako District, Abuja
- 3 Pakiri hotel Ltd., 4 Okwuruola Street, off Stadium Road, Rumuola, Port Harcourt, Rivers State.

Open Course Fee: N300, 000 In-plant Fee Negotiable

#### WORKSHOP FEE:

# N300, 000 per participant, VAT -N22, 500

Note: this covers Workshop Fee, Tea/coffee break, Lunch, course materials and certificate of attendance.

Payment should be made into our Accounts:

Account Name: Human Capital Associates Global Consult Ltd. Union Bank of Nig. PLC: Account No: 0097961537

First Bank of Nig. PLC: Account No: 2033683960 Keystone Bank Ltd.: Account No: 1007150325

For Booking / Enquiry, Call: 234-8051365946, 234-7087578814 24/7 Lines: 234-8068933608, 234-8029170491, 234-8145745664, & 234-9112830607

# **Training Methodology**

Lectures, discussions, exercises, case studies, audio-visual aids will be used to reinforce these teaching/learning methods.