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# Course: Asset Integrity Management of Onshore and Offshore Petroleum Production and Process Systems

| Code     | City | hotel              | Start      | End        | price    | Language - Hours |
|----------|------|--------------------|------------|------------|----------|------------------|
| OG-684SA | Abha | Hotel Meeting Room | 2027-04-18 | 2027-04-22 | 12950 SR | En - 25          |

## Why Choose this Course?

An Asset Integrity Management (AIM) program provides a backbone and incorporates design, maintenance, inspection, process, operations, and management concepts, making optimal return on investments.

This course initiates with the concept of Asset Management (AM) in the offshore and onshore industry (ISO 55000). Then, it focuses on the concept of AIM (i.e. design, technical and operation integrity) in the safeguarding of operational system. The approaches to reliability centered maintenance (RCM), failure mode effect and criticality analysis (FMECA), risk based maintenance (RBI), inspection of static process equipment, maintenance planning of rotating equipment, mitigate the challenges due to human factor, effective project management strategies, etc. are delivered.

## What are the Goals?

- Manage assets in petroleum industry in sustainable and safe manner.
- Assess & control Asset Integrity of operational assets in production & process systems.
- Perform integrity management on topside and sub-sea systems.
- Realize overall asset process in a systems engineering perspective.
- Use of adaptive technologies and techniques in engineering projects.

## Who is this Course for?



- Engineering Asset Management & Asset Integrity Management personnel
- Technical Safety personnel
- Engineers involved in maintenance and modification projects
- Inspection and maintenance analysis and planning personnel
- Project managers and project engineers
- Technical discipline responsible personnel

## **How will this be Presented?**

The course is presented with the support of industrial case studies to deliver the main concepts. Apart from that basic theory, concepts and related standards/regulations/guidelines are explained briefly to point out the AIM related applications in the real life projects. Power point presentations, group discussions, and sharing of project experiences are formally harmonized during the sessions.

## **The Course Content**

### **Day One : Moving from Asset Management to Integrity Management**

#### **Session 1: Offshore Asset Management**

- Introduction to concept of offshore AM
- Role of ISO 55000 (or PAS 55 1&2)

#### **Session 2: Offshore Integrity Management**

- Introduction to concept of offshore IM
- Role of human factor and integrity

#### **Session 3: Offshore Asset Integrity Management**

- Introduction to concept of offshore AI (i.e. design, operational and technical



integrity) management

- Relationship of human factor and technology in asset integrity control

## **Day Two : Asset Integrity Management & Tools to Maintain Rotating Equipment**

### **Session 1: Approaches Used for Asset Integrity Management**

- Introduction to approaches used for AIM
- Current trends towards asset IM

### **Session 2: Reliability Centered Maintenance & Failure Mode Criticality & Effects Analysis**

- Introduction to RCM, regulatory requirements and standards
- Running RCM projects

### **Session 3: Maintenance Planning of Rotating Equipment: Topside**

- Introduction to standards
- Functional failure analysis and consequence classification

## **Day Three : Risk Based Integrity Management & Role of KPIs**

### **Session 1: Integrity Management (Risk Based Approach) of Static Process Equipment: Topside**

- Standards and regulatory requirements for IM: risk based inspections
- Integrity assessment and control of topside systems: challenges in inspection planning and execution



## **Session 2: Integrity Management (Risk Based Approach) of Subsea Systems**

- Standards and regulatory requirements for subsea systems' IM
- Integrity assessment and control of subsea systems

## **Session 3: Asset Integrity Measures/Key Performance Indicators (KPI's)**

- Introduction to performance measurement and performance measures
- Performance indicator prioritization approach(s) for asset integrity assurance

## **Day Four : Maintenance Performance Indicators & Barrier Management**

### **Session 1: Maintenance Performance Indicators & Measures**

- Introduction to guidelines and standards
- Traditional measures used in the oil and gas industry vs. future challenges in remote and harsh environments

### **Session 2: Smarter Maintenance Recording**

- Introduction to safety critical equipment and barrier management
- Prioritization of safety critical equipment maintenance and assigning safety critical status vs. current challenges

### **Session 3: Recent Developments on Asset Integrity**

- Documentation and standard work practices: lean approach
- Managing the change: continuous improvement for sustainable performance and organizational alignment

## **Day Five : Technology Qualification & Managing Engineering Projects**



## **Session 1: Role of Technology Qualification in the Petroleum Industry**

- Introduction to regulatory requirements and standards
- Technology qualification case from remote operations

## **Session 2: Managing Engineering Projects with Variable Activity Durations**

- Introduction to project management and standards
- Role of planning, scheduling and crashing

## **Session 3: Engineering Project Crashing**

- Introduction to project crashing approaches
- How to accelerate projects optimized resource allocation



**The Scandinavian Academy for Training Center** adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training Center.

**Program Timings: 9:00 AM to 2:00 PM**

**The program includes:**

- A daily buffet provided during the sessions to ensure participants comfort.
- A closing ceremony on the final day to distribute certificates and celebrate participants achievements.
- **Note: All prices are exclusive of 15% Value Added Tax (VAT).**