Global Horizon
TRAINING CENTER

Training Course:
Power Plant Precision: Alignment and Vibration Mastery

14 - 18 December 2025
Cairo (Egypt)
Holiday Inn & Suites Cairo Maadi, an IHG Hotel

Training Course:
Power Plant Precision: Alignment and Vibration Mastery

Training Course code: EN235171 From: 14 - 18 December 2025 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 4200 Euro

Introduction

Welcome to the Power Plant Precision: Alignment and Vibration Mastery training program. Power plants are critical infrastructure for providing energy, and the efficient and reliable operation of power plant machinery is essential for meeting energy demands. Alignment and vibration analysis are key components of ensuring the longevity and performance of power plant equipment.

This comprehensive training program is designed to equip participants with the knowledge and skills needed to excel in the field of power plant machinery maintenance. Whether you are an aspiring technician, a maintenance engineer, or a seasoned professional looking to enhance your expertise, this program will provide you with a deep understanding of alignment techniques and vibration analysis essential for optimizing power plant machinery.

Objectives

By the end of this training program, participants will be able to:

- Understand the fundamentals of power plant machinery and the role of alignment and vibration analysis in maintenance.
- Identify various types of vibrations and their sources within power plant equipment.
- Perform precision alignment using laser alignment systems and best practices.
- Utilize vibration analysis tools and software to interpret data, identify faults, and recommend corrective actions.
- Analyze case studies from real power plants to apply theoretical knowledge to practical situations.
- Gain insights into balancing techniques and resonance issues in power plant machinery.
- Develop predictive maintenance strategies and reliability-centered maintenance RCM principles.
- Create a vibration-based maintenance program tailored to the needs of their specific power plant.

Target Audience

This training program is designed for a wide range of professionals working within the power generation and maintenance sectors. The ideal participants include:

- Maintenance Technicians: Technicians responsible for the day-to-day maintenance of power plant machinery.
- Maintenance Engineers: Engineers involved in power plant maintenance, reliability, and optimization.
- Plant Managers: Individuals overseeing the operation and maintenance of power generation facilities.
- Reliability Engineers: Professionals focused on improving equipment reliability and performance.
- Aspiring Power Plant Technicians: Individuals seeking a career in power plant maintenance and operations.
- Anyone interested in gaining expertise in alignment and vibration analysis specific to power plants.

Training Program Outline

Day 1: Introduction to Power Plant Machinery and Vibration

- Welcome and program overview
- Introduction to power plants and machinery
- Fundamentals of vibration in power plants
- Types of vibrations and their sources
- Vibration measurement techniques
- Data interpretation and initial analysis

Day 2: Precision Alignment Techniques

- Importance of precision alignment in power plants
- Types of misalignments and their effects
- Laser alignment systems
- Alignment procedures and best practices
- Alignment case studies

Day 3: Advanced Vibration Analysis

- Vibration analysis tools and software
- Data interpretation and fault identification
- Frequency analysis techniques
- Case studies of vibration analysis in power plants
- Reporting and documentation of vibration data

Day 4: Balancing and Resonance

- Balancing techniques in power plant machinery
- Dynamic balancing principles
- Resonance and its effects
- Practical balancing considerations
- Balancing case studies

Day 5: Maintenance Strategies and Optimization

- Predictive maintenance strategies
- Reliability-centered maintenance RCM principles
- Developing a vibration-based maintenance program

- Program review and Q&A session

Registration form on the Training Course:
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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Person Responsible for Training and Development

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Payment Method

☐ Please find enclosed a cheque made payable to Global Horizon

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Telephone: +201095004484 to provisionally reserve your place.	Fax your completed registration form to: +20233379764	E-mail to us : info@gh4t.com or training@gh4t.com	Complete & return the booking form with cheque to:Global Horizon 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt.