

Advanced Gas Booster Stations Operations

Introduction

- Central gas treatment facility for gas and condensate & gas compression plays very important role in industry, engineers and technicians which deals with this firm need to provide them with exhaustive knowledge and hands-on experience in the operation and performance evaluation of compressors & compression stations commonly utilized in industry.
- Gas compression equipment's including compressors, CRU units, scrubbers and valves, ensuring operational success through effective operation & maintenance strategies, state-of-the-art diagnostic tools, and performance optimization techniques.

Learning Objectives

- How to control produces associated oil and gas from the fields through gathering centers & early production facility.
- Condition monitoring and interpret data to optimize the performance of compression plant equipment's.
- Practical case studies and brain storming workshops for increasing reliability and reduced downtime of compression stations critical equipment's.

Course Topics:

<u>Day #1</u>

- Introduction to central gas treatment & compression process and what is the main objective in oil and gas firm
- Safety, environmental, and regulatory considerations for gas transportation systems.
- Gas compression systems at a production facility equipment, thermodynamics
- Compressor thermodynamics and operating characteristics



Day # 2

- Gas booster station how can be customized for the particular gas compression requirements of oil & gas industry.
- Selection criteria of dynamics and the positive displacement compressors
- Gas transportation systems
- Standards for gas handling and transportation

<u>Day # 3</u>

- Gathering Compressor Station (Natural Gas Gathering Compressor Station)
- Types of gas compressors (positive displacement, dynamic, and hybrid)
- Gas compressors operation factors
- Flow rate and capacity requirements, pressure ratio and discharge pressure, energy efficiency
- Reliability and Durability, Maintenance and Service Support

<u>Day # 4</u>

- Compression systems including condensate recovery units CRU & turn valves compressors
- Throttling Compressor capacity control.
- Methods for eliminating pressure fluctuations and massive storage requirements.
- Gas-powered compressors driven turbines.
- Energy efficiency of Gas Boosters stations
- Workshop: practical case study & problem solutions

<u>Day # 5</u>

- How increase their operational flexibility and reliability
- Strategy and in line with its environmental standards

شركة الخبرة والتميز المهنى للتدريب والإستشارات



- Gas booster's stations preventive, predictive and corrective maintenance: scope & procedure
- Inspection of most critical parts & leak control and prevention
- Gas booster's stations problem detection and diagnostics: root cause analysis
- Shutdown, repair & overhaul options

Location	Conrad Hotel
Start Date	23 June 2024
End Date	27 June 2024
Fees Before Discount	3500 \$
Special Discount	20% (To nominate four participants)
Fees After Discount	2800 \$