€TRAINING

Oil and Gas Operational Safety

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Introduction:

This training program provides comprehensive instruction on safety protocols and procedures specific to the oil and gas industry. It equips individuals with the knowledge and skills necessary to maintain operational safety standards in various oil and gas operations.

Program Objectives:

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

- Enhance their skills in identifying root causes for incidents in the oil and gas industries.
- Identify all business risks and become familiar with oil and gas risk assessment techniques.
- Implement advanced risk management techniques for incident prevention and control.
- Explain the purpose of and procedures for investigating incidents, and utilize lessons learned to improve health and safety in the oil and gas industries.
- Outline the hazards inherent in oil and gas operations, including extraction, storage, and processing, and discuss risk management techniques employed in the industry.
- Explain the purpose and content of an organization's documented evidence to provide a convincing and valid argument for adequate safety systems in the oil and gas industries.

Targeted Audience:

- Technical Personnel.
- Engineering/Project/Process personnel.
- Supervisors.
- Team Leaders.
- Safety Personnel.

Program Outlines:

Unit 1:

Health, Safety, and Environmental Management in Context:

- Learning from incidents.
- Hazards inherent in oil and gas.
- Risk management techniques used in the oil and gas industries.
- Safe systems of work.
- Hydrocarbon process safety I.
- Process Safety Management PSM.

Unit 2:

Hydrocarbon Process Safety:

- Mechanics of failure.
- Safety-critical equipment control.
- Safe containment of hydrocarbons.
- Plant operation and maintenance.
- Start-up and shut down.
- Fire hazards, risks, and controls.
- Furnaces and boiler operations.

Unit 3:

Risk Assessment Techniques:

- Framework for risk assessment.
- Hazard and Operability Study HAZOP.
- Failure Modes and Effects Analysis FMEA.
- The Bow-tie model.
- Safety Integrity Level SIL selection.
- Hazardous Area Classification.

Unit 4:

Fire Protection and Emergency Response:

- Fire and explosion in the oil and gas industries.
- Types of fire.
- Types of explosion.
- Fire and explosion risk analysis.
- Fire and explosion protective systems.
- Emergency Plans and response.

Unit 5:

Logistics and Transport Operations:

- Maritime transport.
- Land transport.
- Diving activities.
- Cargo handling and lifting operations.