MERCURY

American Petroleum Institute (API)
Standards Course

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Introduction:

This program is designed to provide participants with a comprehensive understanding of American Petroleum Institute API standards, ensuring compliance, safety, and efficiency in the oil and gas industry. Join us as we explore the essential standards, guidelines, and best practices established by API to uphold quality, reliability, and integrity across various industry sectors.

Targeted Groups:

This course caters to professionals working in the oil and gas industry, including engineers, inspectors, project managers, and regulatory compliance officers. It is ideal for:

- Engineers and technical professionals involved in the design, construction, and operation of oil and gas facilities.
- Quality assurance and quality control personnel responsible for ensuring compliance with API standards and specifications.
- Procurement and supply chain professionals involved in sourcing API-compliant equipment and materials.
- Health, safety, and environmental HSE professionals seeking to enhance safety protocols and risk management practices.

Course Objectives:

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

- Gain a comprehensive understanding of API standards, specifications, and recommended practices relevant to the oil and gas industry.
- Learn how to interpret and apply API standards in various phases of project development, from design and construction to operation and maintenance.
- Acquire knowledge of API certification processes, conformity assessment procedures, and quality management systems.
- Understand the importance of compliance with API standards for ensuring safety, reliability, and environmental protection.
- Explore case studies and real-world examples to reinforce understanding and practical application of API standards.
- Prepare for API certification exams and professional accreditation in specific API standards disciplines.

Targeted Competencies:

- Proficiency in navigating API standards documents and interpreting technical requirements.
- Ability to apply API standards to engineering design, material selection, and construction practices.
- Skill in conducting audits, inspections, and assessments to ensure compliance with API standards and regulations.
- Understanding of risk assessment methodologies and mitigation strategies by API guidelines.
- Capability to communicate effectively with stakeholders, clients, and regulatory authorities regarding API standards compliance.
- Readiness to pursue API certifications and uphold professional standards of excellence in the oil and gas industry.

Course Content:

Unit 1: Introduction to API Standards:

- Overview of the American Petroleum Institute API and its role in developing industry standards.
- Understanding the structure and hierarchy of API standards, specifications, and recommended practices.
- Importance of API standards in ensuring safety, reliability, and environmental stewardship in the oil and gas industry.

Unit 2: Key API Standards and Specifications:

- Exploration and production standards: API Spec 6A Wellhead and Christmas Tree Equipment, API Spec 5L Line Pipe, and API RP 14C Analysis, Design, Installation, and Testing of Basic Surface Safety Systems for Offshore Production Platforms.
- Refining standards: API RP 571 Damage Mechanisms Affecting Fixed Equipment in the Refining Industry, API RP 520 Sizing, Selection, and Installation of Pressure-Relieving Devices, and API Std 617 Axial and Centrifugal Compressors and Expander-Compressors.
- Pipeline standards: API 1104 Welding of Pipelines and Related Facilities, API 570 Piping Inspection Code: In-Service Inspection, Rating, Repair, and Alteration of Piping Systems, and API 1169 Pipeline Construction Inspector Certification.

Unit 3: API Certification and Conformity Assessment:

- Overview of API certification programs and accreditation processes for manufacturers, suppliers, and service providers.
- Understanding conformity assessment procedures, including audits, inspections, and quality management system requirements.
- Importance of API Monogram Program and API Q1/Q2 certifications for demonstrating compliance with API standards and specifications.

Unit 4: Practical Applications of API Standards:

- Case studies and real-world examples illustrating the application of API standards in engineering design, construction, and operations.
- Best practices for integrating API standards into project management processes, procurement activities, and regulatory compliance initiatives.

Unit 5: Preparing for API Certification Exams:

- Overview of API certification exam requirements, eligibility criteria, and examination formats.
- Study tips, resources, and practice exams to help participants prepare for API certification exams in their respective disciplines.
- Strategies for maintaining API certifications and continuing professional development by API's recertification requirements.