

APTECH Engineering Services, Inc. Petrochemical Group

Technical Integrity & Engineered Safety in Petrochemical Plants, Refineries, and Oil/Gas Plants Seminar

This is an intensive 3-day seminar for maintenance and inspection managers, engineers, operators, and inspectors, which covers all aspects of technical integrity and safety of plant equipment

Objectives

The objective of this seminar is to provide participants with a comprehensive overview and understanding of all aspects of life management and technical integrity of equipment on refineries, petrochemical, and gas plants. This seminar combines current industry regulations, standard methods, and good engineering practices with the latest techniques and practical application of inspection and maintenance technologies. Participants will gain insights into the technical management of equipment, as well as methods for improving the efficiency and safety of plant operations.

Seminar Highlights

This seminar includes a comprehensive overview of all aspects of equipment integrity management. It follows the life of equipment through the design phase, into operation, and explores the latest techniques for the maintenance and inspection of equipment, including risk assessments for the prioritization of activities as well as deficiency resolution.

The latest engineering, safety, industry, and government websites are provided so engineers and management will have on-line resource tools to help solve their toughest problems. Well-known international industrial catastrophes are studied, as well as numerous failure examples from the industry. Feedback exercises, video, CD presentations, and software demonstrations are all included in this seminar.

Each participant will receive a bound hardcopy of the seminar material, as well as a CD containing all the presentations.

Who Should Attend?

This seminar is aimed at technical managers, engineers, and safety, maintenance, operations, and inspection superintendents who are involved with the technical integrity and safety of pressure equipment. In addition, this seminar is ideal for young managers and engineers who need an overview of technical integrity management, as well as experienced engineers who need to familiarize themselves with the latest industry methodologies, tools, and practices.

Instructor

Mr. Stephen A. Anderson, MSME, (USA) is a Technology Manager and a Senior Materials Scientist with over 20 years of industrial experience in Refineries, Petrochemical Plants and Oil companies in the USA, Canada, and South Africa. For the past 20 years, Mr. Anderson has specialized in Technical Integrity, Engineered Safety, metallurgical and corrosion science of refinery and chemical plant equipment and the development of innovative inspection and maintenance programs for a variety of facilities. Mr. Anderson is an accomplished trainer and manager who has been at the forefront of the development and implementation of mechanical integrity and risk based inspection programs, has published many papers on the subject, and has been an invited speaker at numerous international conferences. This experience includes the inspection, condition assessment, fitness-for-service and remaining useful life evaluation of refinery and petrochemical equipment. Additional experience includes software development, corrosion control, metallurgical failure analysis, materials selection, materials testing, and the monitoring and analysis of vessel and piping circuit corrosion data.



Mr. Anderson consulted for Shell, Huntsman, Samsung, Tesoro, Engen, and Caltex in different refineries and process plants in North America and South Africa. Currently, Mr. Anderson is the Director of the Petrochemical Business Unit at Aptech Engineering Services, Inc. in Houston, Texas. Mr. Anderson has published and presented more than 10 papers in Technical Integrity and Engineered Safety.

Mr. Anderson holds a Bachelor of Science Degree in both Physics and Chemistry and a Masters Degree in Materials Science, all from the University of Cape Town, South Africa. He is a member of the National Association of Corrosion Engineers (NACE), the American Society of Mechanical Engineers (ASME), and the American Society for Metals (ASM).

About APTECH

Aptech Engineering Services, Inc. (APTECH) is an internationally recognized engineering consulting firm specializing in independent design and analysis, systems integration, materials engineering, reliability and risk analysis, and failure analysis and investigation. Since 1979, APTECH has been solving complex technical problems for a wide range of clients in the following areas:

- ◆ Mechanical Integrity and Life Extension Program
- ◆ Stress Analysis and Fracture Mechanics
- ◆ Fitness-for-Service Analysis
- ◆ Materials Evaluation and Laboratory Testing
- ◆ Failure Analysis
- ◆ Equipment Life Optimization
- ◆ Thermal-Hydraulic Analysis
- ◆ Risk and Reliability Analysis

Our principal engineers have an average of over 20 years of experience in engineering analysis, project management, and research and development in the technical specialties.

APTECH has successfully completed over 4,500 projects for more than 100 clients around the world.

Day 1

- ◆ Development of Asset Integrity Management System
- ◆ Regulations and Legislation
- ◆ Management Systems and PSM Implementation
- ◆ Industry Standards
- ◆ Failure Statistics
- ◆ Acceptable and Tolerable Risk
- ◆ Probability and Consequence of Failure

Day 2

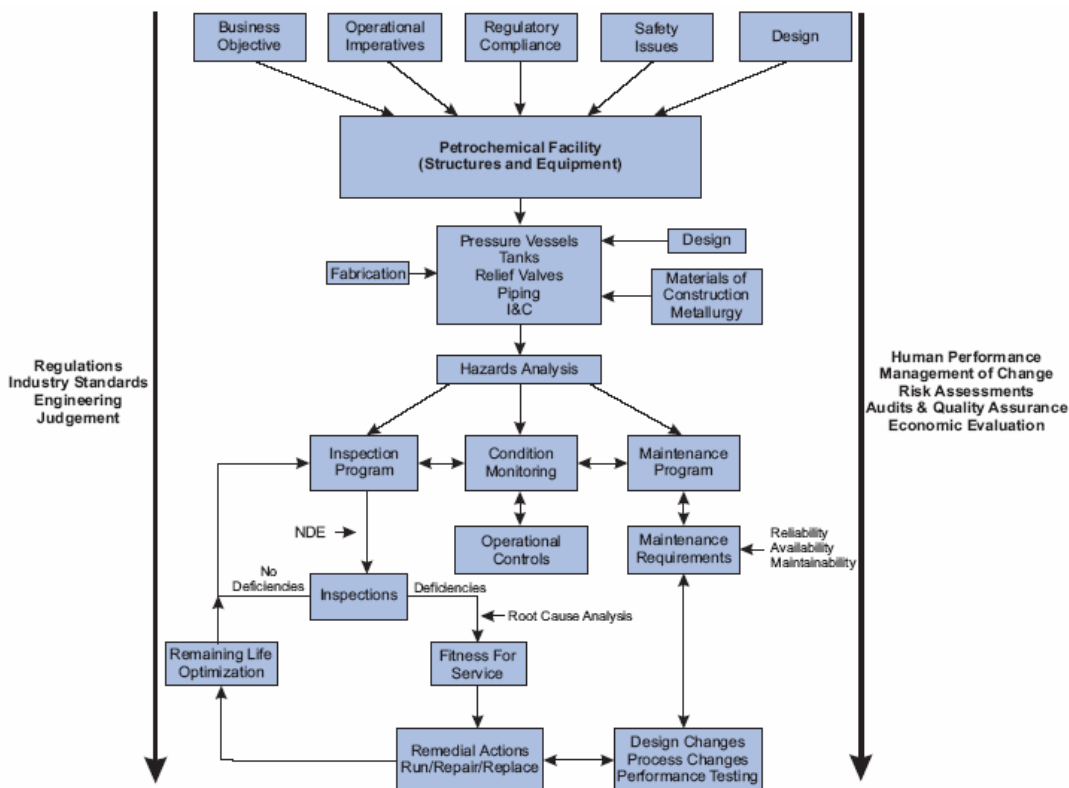
- ◆ Plant Design
- ◆ Equipment Design
- ◆ Materials Selection
- ◆ Pressure Vessel Design
- ◆ Piping Systems
- ◆ Pressure Relieving Devices and Safety Systems
- ◆ Fabrication and Welding
- ◆ Fabrication Quality Assurance
- ◆ Bolted Joint Maintenance

Day 3

- ◆ Process Hazard Analysis
- ◆ Metallurgy, Corrosion, and Prevention of Failures
- ◆ Mechanical Integrity
- ◆ Maintenance
- ◆ Nondestructive Examination
- ◆ Risk Based Inspection
- ◆ Equipment Condition Assessment, Fitness for Service, and Deficiency Resolution
- ◆ Root Cause Analysis
- ◆ Management of Change
- ◆ Safety Audits
- ◆ Human Factors



Course Overview



Course Fees

Course Fee: \$

Accommodations: Accommodations are not included in the course fee. However, APTECH or its agents can arrange any accommodations required at time of booking.

Cancellation Policy: Registration cancellation requests, received in writing, shall be accommodated as follows:

1. Fourteen (14) days or more prior to course commencement date – 100% of course fee will be refunded.
2. Thirteen (13) days or less prior to course commencement date – No course fee will be refunded.
3. Substitution of participants at any time – No additional charge.

Disclaimer: We reserve the right to change the course venue and faculty in force majeure and emergency situations beyond our control.

For More Information, Contact One of These Offices.

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