

# **PRODUCTION SAFETY SYSTEMS T-2**

## **-BASIC COURSE OUTLINE-**

This is a 28 hour MMS and API approved course meeting the training guidelines of 30CFR 250 Subpart O. Students receive an excellent training manual and receive hands-on instruction on a wide variety of production safety equipment to enhance training. TRS has an operable production facility with the basic components (wellhead, header, panel, separator, heater treater, vent scrubber, glycol system, storage tanks, sump, and pipeline pumps) to greatly facilitate training.

### **A. INTRODUCTION -**

Sign in; exit locations; restrooms; course outline & objectives; experience level of students.

### **B. INTRODUCTION TO PRODUCTION**

Students are shown the production process from the wellbore to the pipeline and all components in between such as reservoir, casing, well head, headers, separators, gas dehydration, compressors, pumps, heater treaters, meters, pipelines, sumps, etc. Principles of separation as well as components purposes and configurations are presented as well. Trouble shooting separators and the glycol system is covered. This is an excellent presentation particularly for entry-level personnel.

### **C. 30 CFR PART 250 REVIEW**

A thorough review of the important MMS regulations concerning safety and pollution regulations are presented to the students as they follow along in their training manuals. The importance of the MMS as well as SEMP objectives are introduced to the student as well. An exercise on completing a pollution report as well as estimating spill volume is covered.

### **D. API RP 14C REVIEW**

Students are presented a thorough review of RP 14C including symbols, component codes, safety analysis, safety system design, process component analysis (Safety Analysis Table & Safety Analysis Checklist), Emergency Support Systems, Other Support Systems, Testing and Reporting Procedures. Students are shown abnormal conditions, undesirable events and protective actions through the use of a Power Point presentation. An actual process flow schematic and SAFE Chart exercise is presented to enhance their understanding of the production process and SAFE Chart use. Students are given exercises concerning safety device symbol labeling and SAFE Chart development.

#### **E. PRODUCTION SURFACE SAFETY SYSTEM**

Sensing device (such as pressure safety high/low; pressure safety valve; level safety high/low; temperature safety high/low; burner safety low; arrestors; flow safety valves; shutdown valves; surface safety valves; blow down valves; panels; relays; and other auxiliary devices are covered as well as operating principles, various types, testing requirements, removal and installation procedures, repair and maintenance procedures, causes of failure and malfunctions. Students will complete hands on exercises involving settings, repair and maintenance, and observation of working principles.

#### **F. EMERGENCY SUPPORT SYSTEMS**

Students are introduced to the principles of operation, testing, removal and installation, causes of failures, maintenance and repair, and regulations dealing with the following devices: ESD, Fire Loop, Fire and Gas Detectors, Liquid Containment Systems, Subsurface Safety Devices.

Students are shown examples and setting of downhole valve panels.

#### **G. OTHER SUPPORT SYSTEMS**

Students are introduced to the principles of operation, test requirements, removal and installation, causes of failures, repair and maintenance and regulations concerning the following systems: pneumatic supply and the relief discharge system.

#### **H. POTENTIAL OF NON-COMPLIANCE LIST**

Students to give an understanding of MMS compliance reviewing the PINC List.

#### **I. MMS MONTHLY INSPECTION REPORT**

The process of correctly completing the MMS Monthly Inspection Report is covered thoroughly and completely.

#### **J. NOTICE TO LESSEE'S AND OPERATORS**

Current and applicable Notices to Lessees are thoroughly covered.

#### **K. HANDS-ON SESSION**

Students are required to adjust, set and test individual safety devices; pressure sensors & level switches, etc. This is an excellent learning exercise.

#### **L. EXAMINATION**

Students must successfully pass a 100-question exam. Cards and certificates are awarded after successful completion.

**Time:** 28 hours