

## COURSE 3: - PROCESS AND MECHANICAL DESIGN OF FLARE SYSTEM

Course Fees: Rs 25000/-

Duration: - 50 Hrs

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### ➤ INTRODUCTION:

This course of process and mechanical design of flare system provide a comprehensive overview of flare system for oil & gas processing facilities, refinery, chemical and other industries. This RADD Engineering training course begins with defining the need of flare system for various industries, continues with various type of flare system, selection of flare suitable flare system, flare system sizing, sizing of its key components, Supporting structure consideration as per key engineering and design aspects including standard codes consideration used for design the flare system.

### ➤ COURSE OBJECTIVES :-

- Understand the purpose of flare system and their importance in safe operation
- Understand the process design consideration for flare system and its components
- Understand the Various type of flares system and the supporting structure
- Understand the standard to be used for flares system design
- Selection and sizing of flare system and its key components

### ➤ WHO SHOULD ATTEND:

- Engineering Graduate
- Engineers who are responsible for designing of flare system in oil and gas process facilities
- Operation and maintenance personal who are responsible for operation and maintenance activities.

### ➤ TRAINING COURSE METHODOLOGY:

- This training course will combine the presentation, interactive classes, examples, videos of flare system supported with soft copy of training course booklet.

### ➤ COURSE CONTAIN :-

#### 1. Introduction to flare system

- Detail Study of Flare Systems
- Need of flare system
- Overview of typical flare system
- Key components of flare system including: -
  - Flare tip
  - Flare stack
  - Seal
  - Water seal Drum/Liquid seal drum
  - Knock out Drum
  - Ignition system
- Typical PID for flare system

- Standards for process design
- 2. Process Design Consideration**
  - Capacity
  - Allowable pressure Drop
  - Radiation Requirements
  - Smokeless requirement
  - Noise
  - Visible flame
  - Emissions
  - EPA/Local regulation
- 3. Sizing of key components**
  - Knock out Drum
  - Water seal Drum
  - Flare stack/ flare tips
  - Ignition system
- 4. Type of flare system**
  - Elevated flare system
  - Enclosed ground flare system
  - Burn Pits
- 5. Flare system supports system and mechanical Design aspects for supporting structure**
  - Self-supported flare system
  - Derrick supported flare system
  - Guy rope supported flare system
  - Mechanical Design aspects and load consideration as per API 537
  - Standards used for structural and mechanical design
- 6. Sample calculation**

**Note: -**

- Evaluation test will be conducted after completion of each Course.
- Courses will be conducted on Weekends i.e. Saturday & Sunday or regular
- Interested Candidates can registered for Free Session