



Course Outline – Understanding of PFDs and PIDs

1 Introduction to PFDs and PIDs

- 1.1 Description of Block Flow Diagram
- 1.2 Description of PFDs
- 1.3 Description of PIDs
- 1.4 Differences between two types of drawings (PFDs and PIDs)

2 Importance of Understanding

- 2.1 Process Flow Diagrams (PFDs)
- 2.2 Piping and Instrument Diagrams (PIDs)

3 Understand the symbols used for illustrating

- 3.1 Piping
- 3.2 Valves
- 3.3 Equipment
- 3.4 Instrumentation
- 3.5 Miscellaneous

4 Interpreting PIDs

- 4.1 Piping (Line No, Line Size , Spec, Commodity etc)
- 4.2 Valves (Type, identification, fittings)
- 4.3 Equipment (Tanks, Vessels, Pumps, compressors, heat exchangers etc)
- 4.4 Control and Safety Systems (Instrument symbols, instrumentation control loops, flow/pressure/temp instruments)

5 Safety Systems

- 5.1 Safety System in P&ID
- 5.2 Pressure Relief System
- 5.3 Safety Features in industry

6 Role of different disciplines- during PIDs development

- 6.1 Process Engineer
- 6.2 Piping Engineer
- 6.3 Controls Engineer
- 6.4 Mechanical Engineer
- 6.5 Materials Engineer
- 6.6 Other Discipline input

7 Exercise