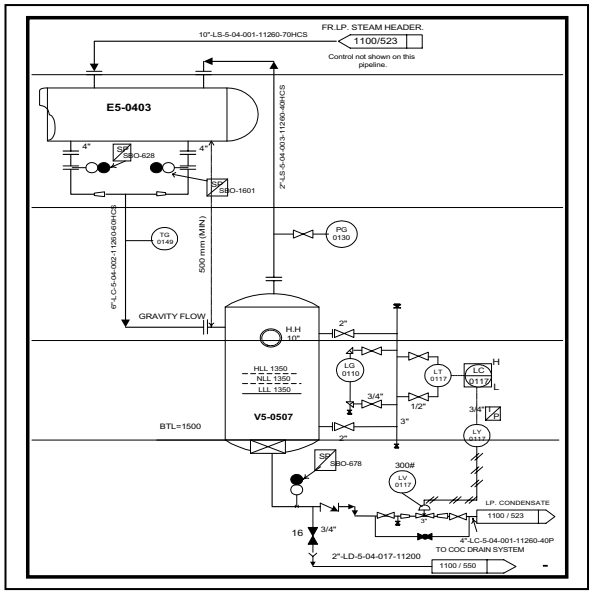
READING AND UNDERSTANDING P&IDS

Introduction

Understanding P&IDs and the ability to develop P&ID is the heart of engineering and operation of process plants. The course is deigned for Process Engineers and specialist engineers from Piping and Instrumentation Departments of Engineering or Operating Companies. It gives an excellent understanding on P&IDs to graduate trainees of all disciplines working in the process industry.

It is a one-day or two day program customized to suit the specific industry. Generally the focus is on the practices in Oil, Gas and Petrochemical industries.



Course Content

No.	TOPIC	DESCRIPTION
1	**The Basic Concepts**	• Definitions and Abbreviation • Purpose of PFD and P&ID • Information Provided on PFD and P&ID ➢ Process Related Information ➢ Piping Related Information ➢ Instrumentation and Control Related Information ➢ Special Information
2	**Generic Symbology And Numbering Systems**	• Symbols ♦ Piping ♦ Valve ♦ Control Valve and Actuator ♦ Instruments • Notation, Numbering & Tag System ♦ Equipment ♦ Instrument ♦ Pipelines ♦ Instrumentation and Control ♦ Combining Process and Hardware ♦ Piping Specialty Code
3	**Understanding PFDs**	• Why PFD • Relating PFD Information to P&ID ♦ Relevance of Heat and Mass Balance ♦ Relevance of Operating Conditions ♦ Relevance of Physical Property Information

No.	TOPIC	DESCRIPTION
4	**Understanding and Developing P&ID**	• Equipment and System • P&ID and Datasheets • Development of A Simple Basic P&ID • Valves – Type and Application • Development of Control Loops • Need and Location of Measuring Instruments • Depiction of DCS and RTU • Developing Piping Information • Safety System in P&ID • Incorporation of Information in P&ID • Detailed Study of P&IDs
5	**Offshore P&ID**	• Specific Requirements & Special Information • Safety, Redundancy and Application of API RP-14C • Study of Few Offshore P&ID • Development of Safe Chart • Emergency Shutdown Systems (ESD)
6	**Case Studies and Classroom Exercise**	• Simple P&ID • Control Loops • Detailed P&ID • Practical Use of Information Provided on P&ID • Case Studies and Exercise, Specific to Hydrocarbon Industry. • Batch Process P&ID

Methodology of Presentation

- Microsoft Power Point with colorful slides packed with information
- Real life P&ID exercises
- Highly interactive with total involvement of the participants.
- Interesting and Interactive Quiz Sessions, Group Tasks for better assimilation.