An LDI Training Course

BASIC PROCESS ENGINEERING DESIGN

by

Ir. In Jumanda Kasdadi, M.T.

COURSE DESCRIPTION

This training is intended to provide knowledge and understanding of basic process engineering design. The discussion will start from knowledge about the properties of oil & gas as a design basis, to examples of process engineering, for example for the separation process, piping/pipeline, cooling, heating, heat exchanger, control systems, safety engineering, and so on. Step by step in process engineering design will also be discussed in this training, along with the documents, drawings and diagrams knowledge during the engineering process. In addition, software that is commonly used during the engineering design process is also introduced, and the basics of using the software are learned.

COURSE OBJECTIVE

The Objectives of this course are

- to understand the properties of oil & gas as a basis for process engineering design.
- to understand step by step in process engineering design.
- to know and be able to read and understand the documents, drawings & diagrams produced in a process engineering design project.
- to understand basic process engineering design with examples on separation processes, piping/pipeline, control systems, safety engineering, and so on.
- to know the software used in process engineering design, and know the basics of using the software.

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COURSE OUTLINE

- **Introduction to Basic Process Engineering Design**
- **Understanding Oil & Gas Properties for Purpose of Process Engineering Design** (molecular weight, specific gravity, API gravity, GHV, HHV, vapor pressure, etc)
- **Steps of Process Engineering Design** (design basis, process description, mass & energy balance, setting instrument & control system, setting safety system, etc).
- **Process Engineering Document, Drawing & Diagram** (PFD / process flow diagram, PID / piping & instrument diagram, isometric drawing, cause & effect drawing, etc)
- **Basic Process Engineering Design for Control System** (control system & instrumentation, process measurement, final control element, etc)
- **Safety Engineering in Process Design** (alarm system, SIS, safety instrumented system, shutdown system, HAZID, HAZOPS, etc)
- **Software of Process Engineering Design** (Aspen Hysys modeling and simulation, fluid package, dew point, bubble point, etc)
- **Engineering Design for Separation Process** (2 & 3 phase separator, FWKO, scrubber, KO drum, VLE / vapor liquid equilibrium, etc)
- **Engineering Design for Piping/Pipeline Process** (flow regime, ID / inside diameter determination, WT / wall thickness, pressure drop, NPS, Pipe SCHE, etc)
- **Engineering Design for Others Process** (heating, cooling, heat exchanger, mixing, split flow, etc)
- **Discussion, Case Study, and Film**

WHO SHOULD ATTEND

Project Engineers, Maintenance Engineers, Operation Engineers, Mechanical Engineers, Process Engineer, Electrical and Instrument Engineers, QA/QC Engineers, Construction Engineers, and other related Engineers, Technologists, Plant Supervisors, and Plant Operators wanting to broaden their understanding of Basic Process Engineering Design

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INSTRUCTOR:

Ir. In Jumanda Kasdadi is an experienced instructor who has been conducting training for oil and gas companies since 1997.

He has BS and MS in chemical engineering degrees from the Institute Technology Bandung.

Mr. kasdadi has conducted training for Chevron, Pertamina Hulu Energi–ONWJ, ConocoPhillips, Total, Medco, Petrochina, Pertamina, Star Energy, and many others.

Ir. In Jumanda Kasdadi was involved in several front-end engineering design (FEED) and Risk-Based Inspection projects.

IJK has also taken courses for 9 topics in The Oil & Gas fields at PETEX (Petroleum Extension), University of Texas at Austin, in Houston, Texas, USA (2018).

COURSE DELIVERY

- This offline (face to face) course is conducted in Bahasa Indonesia
- Training hours are from 08:00 to 16:00 WIB
- Participants will receive course materials
- Participants will receive a certificate after completing the training

LDI Training will provide a Confirmation Letter after we receive registration according to the required quota.

For course registration and more information please email to

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