

SAFETY ENGINEERING IN DESIGN

by

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COURSE OVERVIEW

Pelatihan ini dimaksudkan untuk memberikan pengetahuan dan pemahaman mengenai *safety engineering* dalam perancangan (*safety engineering in design*). Pada bagian awal pelatihan ini akan dibahas istilah-istilah dalam *safety engineering* seperti *hazard*, *danger*, *risk*, dan sebagainya. *Process design*, *engineering drawing*, serta *protection layer* dalam *safety engineering* akan dibahas satu persatu dalam pelatihan ini. Berbagai teknik untuk mengidentifikasi bahaya pada *safety engineering* dalam design juga dibahas dalam pelatihan ini seperti HAZID, HAZOPS, FTA, dan ETA. Secara umum, setelah mengikuti pelatihan ini, para peserta diharapkan akan mendapatkan pengetahuan dan pemahaman mengenai safety engineering dalam perancangan (*design*) secara menyeluruh.

COURSE CONTENTS

Introduction to Course

Safety Engineering Terminologies (hazard, danger, risk, event, incident, accident, etc)

Design Process & Safety Engineering (basic engineering design data, example of process calculation, front end engineering design / FEED, detail design, etc)

Layers of Protection for Safety & Reliability (independent protection layer / IPL, process control, alarm system, relief

system, etc)

Engineering Drawing in Design (process flow diagram / PFD, piping & instrument diagram / P&ID, etc)

Basic Process Control System / BPCS (process control loops, measuring element, controller, final control element, etc)

Safety Instrumented System / SIS (sensor, logic solver, final element, safety integrity level / SIL, etc)

HAZID / Hazard Identification (project safety activity, checklist, what if, process hazard analysis, etc)

Hazard and Operability Study / HAZOPS (nodes, deviation, causes, consequence, recommendation, etc)

FTA (Fault Tree Analysis)

ETA (Event Tree Analysis)

Hazardous Area Classification / HAC (class, division, zone, temperature class, material class, etc)

Discussion, Case Study & Film

About the Instructor

Ir. In Jumanda Kasdadi is an experienced instructor and he 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.

Companies that have received Mr. Kasdadi's inhouse training include 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.

For more information about the course, please visit lditraining.com or contact LDI Training at [HYPERLINK "mailto:lditrain@indo.net.id" lditrain@indo.net.id](mailto:lditrain@indo.net.id)