

IIPS In-House Courses Program

About IIPS

Indonesian Institute for Process and Safety, IIPS is professional, global, educational organization connecting people and ideas in process, process safety and safety. The Society fosters advancement in the theory, design, manufacture, and use of process technology and management and safety knowledge in a wide variety of applications. In addition to serving the largest contribution to process, process safety, and safety in Indonesia, IIPS is willing to be a leading technical training organization and a respected publisher of books, forums, and journals. IIPS will also serves the professional development and accreditation needs of Process Safety Engineers (PSE), Safety Engineers/Officers, and others within the field of process, process safety and safety.

For complete information about IIPS, please click on www.iips-online.com

Courses Offered by IIPS

Short Course Number: IIPS-301

Short Course Type: Process Hazards and Risk Management

Short Course Title: *Introduction to HAZOP Studies, and Other PHA Techniques for Process Safety and Risk Management*

Description :

This course concentrates on the technique of HAZOP, or Hazard and Operability Studies, as applied to Petrochemical, Chemical and other process plant P&ID drawings. However, the technique explored is equally applicable to any process, procedure or function where an adequate description of a future intent can be assembled either in the form of a process line diagram or some written form of future actions.

HAZOP techniques are a required feature of the legislation of many national authorities worldwide. They provide some measure of assurance that the process design being examined will be safe and operable when commissioned.

It is widely recognised that the application of systematic hazard studies can greatly assist in a proactive approach to identify hazardous incidents and the application of quantitative assessments to assist in indicating what control measures may be necessary.

Course Objectives :

The course is designed to meet the needs of managers and supervisors, who are required to initiate such studies, and to provide potential participants with a good grounding in the technique, and its objectives. The course also provides an insight into factors, which should be borne in mind by team members during HAZOP, that will enrich the effectiveness of their studies and produce a creative and innovative environment. The structure is designed to be intensively interactive in nature with group exercises providing ample opportunity for participants to practice the techniques involved. The programme will also be interspersed with case study reviews from the *Onshore and Offshore* incidents, and videos which will be discussed in open session.

Course Highlights :

- Overviews of Process Safety Management
- The HAZOP Technique
- The HAZOP Preparation
- The HAZOP Team and Leader
- The HAZOP Record and Report
- Alternative / Other Process Hazards Analysis Methods
- Gas Dispersion and Human Error as an aid to HAZOP
- Operating Instruction HAZOP
- Hazard Analysis and the Use of Fault Trees
- Regulations, Standards and Legal Issues
- Case Studies and Group Exercises

Who Should Attend?

- Individuals who are inexperienced with the requirements for performing and documenting process hazard analyses.
- Individuals who will be members of process hazard evaluation teams.
- Individuals who are managing and performing process hazard analyses and risk assessments.

Prerequisites

None

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-302, IIPS-303, IIPS-304, IIPS-305, IIPS-306

Ways to Registers:

By phone : 0811170156 (Darmawan Ahmad); 085216189718 (Faris Syauki)

By e-mail to : syauki@idn.tuv.com ; darmawan@singgar-mulia.co.id

Wire transfer to : BCA KCU Dago A/C # 777 0021639 (Lusiana Dewi)

Short Course Number: IIPS-302

Short Course Type: Process Hazards and Risk Management

Short Course Title: **Advance HAZOP and Other Process Hazards Analysis (PHA) Study**

Description :

Advance Process Hazards Analysis (PHA) Case Study / Workshop helps participants to gain an understanding of governing the performance of PHA and the techniques acceptable to regulatory standards. Guidance is provided on selecting PHA techniques and participating in a PHA, and each of the techniques acceptable to regulatory standards is described within case study / workshop. Attendees participate in the performance of demonstration PHAs led by the course instructor using the HAZOP and What-If techniques.

After completing this course, participants are prepared to serve as members of PHA teams or to begin team leader training. This course is recommended as a prerequisite for IIPS-303 of the Process Hazards and Risk Management Series.

Course Objectives :

Learn to conducting a process hazard analysis studies using the HAZOP and Other PHAs techniques within wide-range of Process Safety aspects. Participants discover the in-dept rootcause factors that led to an accident.

Course Highlights :

- Human Factors in PHAs
- Facility Siting in PHAs
- Treating Utilities
- Handling Multiple Modes of Operation
- PHA for Process Changes
- PHA for Procedures
- PHA for Batch Processes

Who Should Attend?

- Individuals who are inexperienced with the requirements for performing and documenting process hazard analyses.
- Individuals who will be members of process hazard evaluation teams.
- Individuals who are managing and performing process hazard analyses and risk assessments.

Prerequisites

Attendance at IIPS's Introduction to HAZOP Studies, and Other PHA Techniques for Process Safety and Risk Management (IIPS-301) training course (or equivalent) or experience as a team members of PHAs.

Number of days: 1
CEU's: 0.8
Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-301, IIPS-303, IIPS-304, IIPS-305, IIPS-306

Ways to Registers:

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Short Course Number: IIPS-303

Short Course Type: Process Hazards and Risk Management

Short Course Title: ***Team Leaderships on HAZOP Studies and Other PHA Techniques***

Description :

HAZOPs and Others PHA Techniques for Team Leaders helps prepare leaders of process hazard analysis study teams. In addition to receiving expert instruction on the technical and managerial procedures involved with leading a HAZOP and others PHA team, you'll form a study team with other participants and take turns leading a team. Instructors who will give feedback on your performance oversee this exercise. Upon completing this course you will receive certificate of training to satisfy requirements for HAZOPs or PHA team leaders.

Course Objectives :

Learn to organize and lead process hazard analysis studies using the HAZOP and Other PHAs techniques. Participants discover the tactics and success factors that help ensure a successful study.

Course Highlights :

- Preparing and Organizing HAZOP and Other PHA Studies
- Inherent Safety Review
- Subdividing the Process for Study
- Design Intent, Parameters and Deviations
- Completing the PHA Worksheet
- Recording HAZOP and Other PHA Studies
- Meeting Regulatory Requirements
- Leadership Skills for Managing the Team
- Management of HAZOP and Other PHA Studies
- Quality Control in HAZOP and Other PHA Studies
- HAZOP and Other PHA Report Preparation
- Managing the Follow-Up of HAZOP and Other PHA Results

Who Should Attend?

- Production Managers
- Engineering Managers
- Process Engineers
- Safety Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers
- Project Managers / Engineers
- Individuals who will be a team leader of Process Hazards Analysis Study

Prerequisites

Attendance at IIPS's Introduction to HAZOP Studies, and Other PHA Techniques for Process Safety and Risk Management (IIPS-301 and/or IIPS-302) **training course (or equivalent) or experience in leading PHAs.**

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-301, IIPS-302, IIPS-304, IIPS-305, IIPS-306

Ways to Registers:

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Short Course Number: IIPS-304

Short Course Type: Process Hazards and Risk Management

Short Course Title: ***Re-certification for PHA Team Leaders***

Description :

PHA is a dynamic subject with new technical developments and regulatory interpretations occurring frequently. This course from IIPS will bring experienced PHA Team Leaders up to date with the latest technical and regulatory issues regarding Process Hazard Analysis. A discussion will also be provided of key issues that typically arise during PHA studies and guidance will be given on how to deal with such issues. There will be an opportunity to discuss any problems participants have encountered in PHAs they have led.

This course will help those who have led PHA studies sharpen their skills to be better Team Leaders.

Course Objectives :

To learn about the latest technical and regulatory developments in PHA. To review key issues in performing PHAs and how to handle them.

Course Highlights :

- Regulatory developments in PHA
- Technical developments in PHA
- Key PHA issues and their treatment (shared examples from class participants will be discussed)
- How to handle obstacles in the PHA study (shared examples from all class participants will be discussed)
- Ensuring quality PHA study results / report

Who Should Attend?

- Production Managers
- Engineering Managers
- Process Engineers
- Safety Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers
- Project Managers / Engineers
- Other individuals who has experienced as a Team Leader of PHA

Prerequisites

Attendance at IIPS's Team Leaderships on HAZOP Studies and Other PHA Techniques (IIPS-303) training course (or equivalent) or experience in leading PHAs.

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-301, IIPS-302, IIPS-303, IIPS-305, IIPS-306

Ways to Registers:

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Short Course Number: IIPS-305

Short Course Type: Process Hazards and Risk Management

Short Course Title: **Advance PHA for Team Leaders**

Description :

This course goes beyond the fundamentals of facilitating the performance of PHA covered in the course " Team Leaderships on HAZOP Studies and Other PHA Techniques" and deals with more advanced issues including the use of PHA to analyze in detail the hazards of batch processes, procedures, control systems, and reactive chemicals, and to help meet the requirements of the ANSI/ISA S84.01 standard on safety instrumented systems.

The course explains how HAZOP, What-If and other PHA methods can be used to identify the potential for errors in executing operating, maintenance and other procedures. The application of these methods to batch procedures and processes is also explained. PHA techniques that can be used to analyze the hazards of process control systems explicitly are also described. This provides a more detailed description of control systems hazards than is possible with classical PHA. Examples are provided of the application of the PHA approaches described and attendees participate in workshop sessions to gain experience using them.

This course was developed for those who have received formal PHA training and experienced PHA Team Leaders and participants. An understanding of PHA regulatory requirements and experience or formal training as a PHA team leader is necessary to be successful in this course.

Course Objectives :

To learn about advanced subjects in Process Hazard Analysis that should be considered by PHA study teams.

Course Highlights :

- Overview
- Regulatory expectations for PHA
- Procedures
- Batch Processes
- Characteristics of Control Systems
- Hazard Analysis of Control systems
- Requirements of the S84 standard
- PHA and Layers of Protection Analysis (LOPA)
- Addressing the hazards of reactive chemicals in PHA

Who Should Attend?

- Production Managers
- Engineering Managers
- Process Engineers
- Safety Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers
- Project Managers / Engineers

- Other individuals who has experienced as a Team Leader of PHA

Prerequisites

Attendance at IIPS's Team Leaderships on HAZOP Studies and Other PHA Techniques (IIPS-303) training course (or equivalent) or experience in leading PHAs.

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-301, IIPS-302, IIPS-303, IIPS-304, IIPS-306

Ways to Registers:

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Short Course Number: IIPS-306

Short Course Type: Process Hazards and Risk Management

Short Course Title: **Updating and Revalidating PHA**

Description :

This advanced course teaches participants how to revalidate previous PHAs in accordance with the regulations. Participants will learn the most effective approaches to use in PHA updates and revalidations. This course provides information on recent regulatory interpretations and clarifications to assist in the identification and correction of possible omissions and deficiencies in the previous PHA.

Course Objectives :

Explain how to revalidate existing PHAs to account for process modifications and omissions and deficiencies in the previous PHA.

Course Highlights :

- PHA Revalidation Requirements (OSHA, EPA, API, etc.)
- Goals and Objectives: Level of Compliance; Multiple End-users; EPA RMP Impacts
- Identifying and Assessing Required Information; Integrating Management of Change Information
- Defining Your Revalidation Approach; Updating and Revalidating a PHA; Documenting a Revalidation/Update

Who Should Attend?

- Production Managers
- Engineering Managers
- Process Engineers
- Safety Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers
- Project Managers / Engineers
- Other individuals who has experienced as a Team Leader of PHA

Prerequisites

Attendance at IIPS's Team Leaderships on HAZOP Studies and Other PHA Techniques (IIPS-303) training course (or equivalent) or experience in leading PHAs.

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-301, IIPS-302, IIPS-303, IIPS-304, IIPS-305

Ways to Registers:

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Short Course Number: IIPS-101

Short Course Type: Project Design Procedures Process Review

Short Course Title: **Engineering Design for Process Safety**

Description :

To fully understand the impact that various engineering design choices will have in ensuring safe, reliable plant operations and minimizing the risk of catastrophic accidents in your facility. The course is ideally suited to engineers involved in engineering design, the process hazard analysis team, and project personnel charged with making basic decisions on plant design.

Course Objectives :

How to understand that engineering design for process safety begins with an early commitment to inherent safety. Cover the scope of process safety design issues that address all stages of the evolving design of a facility. Focus on incident avoidance through sound initial design choices, as well as minimizing chemical processing hazards. Gain an understanding of the interrelationships of various process systems and the trade-offs involved.

Course Highlights :

- Inherently Safer Plants; Plant Design; Equipment Design; Materials Selection
- Piping Design
- Heat-Transfer Fluid Systems; Thermal Insulation; Process Monitoring and Control
- Sources of Ignition; Electrical Hazards; Explosion Protection; Deflagration and Detonation
Flame Arrestors
- Pressure Relief Systems; Effluent Disposal Systems; Fire Protection

Who Should Attend?

- Individuals who are inexperienced with the requirements for performing and documenting process safety during engineering design
- Engineering Managers
- Process Engineers
- Safety Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers
- Project Managers / Engineers

Prerequisites

None

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-102, IIPS-103

Ways to Registers:

By phone : 0811170156 (Darmawan Ahmad); 085216189718 (Faris Syauki)
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Short Course Number: IIPS-102

Short Course Type: Project Design Procedures Process Review

Short Course Title: **Process Safety Fundamental in General Plant Operation**

Description :

The Institute presents its currently recommended fundamental safety practices and methods of applying them to reduce the risk of operating accidents in the chemical process industries. Concerned not so much with technical or engineering matters as with management issues and responsibilities especially at smaller plants that emphasize batch processing and lack a full complement of safety specialists. Covers materials and chemicals handling, process equipment and procedures, cleanup and process changeover, training, special procedures and programs, and a range of general topics such as inspection, spare parts, storage, hazardous work, and control of the working environment.

Course Objectives :

A comprehensive source for basic and essential operations and procedures in use in any facility, the training offers chemical operators and first line supervisors guidance in applying appropriate practices to prevent accidents, and suggests which practices to avoid.

Course Highlights :

- Material and chemical handlings
- Process equipment and procedures
- General topics
- Cleanup and process changeover
- Training, special procedures and programs

Who Should Attend?

- Individuals who are inexperienced with wide-aspects of process safety in general plant operations
- Production Managers / Engineers / Supervisors
- Process Engineers
- Safety Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers

Prerequisites

None

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-101, IIPS-103

Ways to Registers:

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Short Course Number: IIPS-103

Short Course Type: Project Design Procedures Process Review

Short Course Title: ***Introduction to Process Safety Management Implementation***

Description :

The Indonesian Institute for Process and Safety addresses the need for technical management commitment and systems to reduce the potential for exposing the public and the environment to harmful chemicals as a result of an accident in a chemical processing plant. The course also describes how to undertake the design, development, and installation of process safety management systems. Complements the Institute's previous courses on the subject.

Course Objectives :

The course will cover how to understand the key steps in implementing process safety management systems for compliance with regulations or conformance with industry standards. Expertise on many tools and tips for meeting the intent of regulations and standards will be also deliver to participants.

Course Highlights :

- Overview of PSM
- How to get Management Commitment
- Defining PSM Goals
- Evaluating PSM Status
- Developing PSM Plan
- Put PSM systems into practice
- Measuring and monitoring PSM

Who Should Attend?

This is an introductory course, so participants do not require any specific experience, but would benefit from having a working knowledge of process safety management regulations and industry standards.

Prerequisites

None

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-101, IIPS-102

Ways to Registers:

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Short Course Number: IIPS-104

Short Course Type: Project Design Procedures Process Review

Short Course Title: ***Introduction to Fire Protection on Chemical, Petrochemical and Hydrocarbon Processing Facilities***

Description :

This in-dept course teaches participants how to establishing a Fire Protection Philosophy. Participants will also learn the most effective approaches to integrating Fire Protection in a facility's risk management system. This course provides information on how to implementing fire protection program. Participants will also be assist in the using decision-making tool for fire protection

Course Objectives :

How to understand developing, implementation, and integrating a fire protection program into a company's or facility's risk mangement system. This course will also intend to updating participants knowledge with the recent information of protection codes and standards available form several sources.

Course Highlights :

- Fire protection strategy
- Overview of fire prevention elements
- Overview of Fire Hazards Analysis
- Fire Protection Fundamentals
- Installation of Fire protection systems
- Fire emergency response

Who Should Attend?

- Individuals who are inexperienced with the requirements for performing fire protection in petrochemicals, chemicals and hydrocarbon facilities
- Corporate Leaderships
- Engineering Managers / Process Engineers
- HSE Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers
- Project Managers / Engineers

Prerequisites

None

Number of days: 1

CEU's: 0.8

Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-101, IIPS-102

Ways to Registers:

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Short Course Number: IIPS-307

Short Course Type: Project Design Procedures Process Review

Short Course Title: **Introduction to Chemical Process Quantitative Risk Assessment (CPQRA)**

Description :

Recently, there have been increases in (1) international requirements to perform process hazard analyses (PHAs) (and address the recommendations that result from these PHAs), (2) state and local requirements for employee/public safety and environmental protection, and (3) insurance companies' demands for equipment and facility protection. Many companies are quickly becoming overwhelmed with decisions that involve significant capital investments and/or trade-offs. Quantitative risk assessment (QRA) provides unique insights that help you select the most cost-effective solution among various alternatives or justify (or reject) a more expensive option. When decisions are costly or complex, managers and engineers often turn to QRA methods to help in the decision-making process.

Course Objectives :

How to understand the well-established data analyses techniques. Learn to understand strengths and limitations of industrial databases, plant specific datas and use of judgment. Develop a better appreciation for QRA uses, strenghts and limitations.

Course Highlights :

- Overview of CPQRA
- Consequences Analysis
- Measurement, Calculation and Presentation of Risk Estimates
- CPQRA Databases
- CPQRA Case Studies

Who Should Attend?

- Individuals who are inexperienced with the requirements for performing Chemical Process Quantitative Risk Assessment
- Engineering Managers
- Process Engineers
- Safety Managers / Engineers
- Design Engineers
- Maintenance Managers / Engineers
- Project Managers / Engineers

Prerequisites

Attendance at IIPS's Introduction to HAZOP Studies, and Other PHA Techniques for Process Safety and Risk Management related (IIPS-302, IIPS-304 and IIPS-305) training course (or equivalent) or experience in performing CPQRA.

Number of days: 1
CEU's: 0.8
Course Hours: 8

Instructors:

IIPS Team

Related Course :

IIPS-302, IIPS-304, IIPS-305

Ways to Registers:

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About CEE :

The IIPS Continuing Education Earnings (CEE) program is a method for the documentation and recognition of professional development and life long learning activities individuals seek out after they have completed their initial education. Continual educational growth is the means by which qualified practitioners maintain the skills and knowledge necessary to provide high standards of process, process safety and safety practice. Practitioners also participate in professional development activities to learn new developments in the process, process safety and safety fields or develop new areas of specialized practice. Participation in continuing education is an important activity that contributes to high standards of excellence in the provision of process, process safety and safety services.

The Indonesian Institute for Process and Safety (IIPS) provides a national of recording and reporting the continuing education activities of process, process safety and safety practitioners. It also provides a means by which upcoming educational events can be identified as eligible for CEE credit.

Potential Benefits

The Continuing Education Earning system provides the following potential benefits:

- documents the wide variety of process, process safety and safety related workshops, conferences and other field based events often taken by process, process safety and safety professionals
- includes a transcript which records all accumulated CEE credits and which is sent free of charge to IIPS members annually
- provides educational institutions with an official record of learning outside of formal educational programs
- provides present or potential employers with an official record of learning relevant for job maintenance, career advancement or job applications
- provides documentation of training or learning required for local, provincial, national or global certification in the process, process safety and safety profession.
- Utilized as minimal condition for Process Safety Engineer certification