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# Process Hazard Analysis for team members

## Overview

Process Hazard Analysis is a must for a Process Safety Management System to work. To achieve good results in PHA and PSM, the Process Hazard Analysis must be performed by a knowledgeable team: Members need to know their roles as how important is to perform best. This course teaches from the principles of Process Safety to the Process Hazard Analysis and how to perform best as PHA participant, from PHA preparation to the final execution of the study. The program includes the three most common methods for PHA: Check-List, What-If & HAZOP. With special attention to HAZOP method. Practical exercises, including a “mock” HAZOP at the end of the program, are included.

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## Program Outline

- 1. Introduction to Process Safety**
- 2. Risk Management**
- 3. Process Hazard Analysis (PHA)**
  - a) Concepts
  - b) PHA 5 W
- 4. PHA Preparation & Selection**
- 5. CHECK LIST**
  - a) Why Check-List?
  - b) Method
  - c) Example
  - d) Exercise
- 6. WHAT-IF**
  - a) Why What-If?
  - b) Method
  - c) Example
  - d) Exercise
- 7. HAZOP**
  - a) Why HAZOP?
  - b) Method
  - c) Example
  - d) Exercise
- 8. MOCK HAZOP**

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## Who should attend?

Program is intended for Operators, Engineers and anybody that is required to participate in a Process Hazards Analysis Study. New personnel starting to work in the Oil & Gas Industry will benefit as well.

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## Learning Outcome:

After the course, the participants will be able to:

- ✓ Understand the importance of Process Safety
- ✓ Understand the importance of Process Hazard Analysis, key role of Process Safety
- ✓ Prepare for an upcoming Process Hazard Analysis Study
- ✓ Select the best method for Process Hazard Analysis.
- ✓ Be an active participant -with great performance- in future PHA studies.

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## Instructor:

### **Germán Luna-Mejías, BSc ChE, P. Eng., FS Eng. (PH&RA).**

Member of AIChE, CSChE and Professional Engineer in Alberta, Canada.

He holds a Chemical Engineer Degree from Universidad Simon Bolivar (Venezuela); with more than 35 years of experience in the Oil & Gas Industry in Venezuela and Canada. Broad experience in Process Engineering, Operation's Engineering, Process Safety and Volunteer Firefighter for Refinery Operations. His work in Process Safety is focused in HAZOP/LOPA facilitation, consulting and training. He has authored and presented several papers in worldwide conferences: Global Congress for Process Safety, Canadian Chemical Engineers Society Annual Conference (PSM Symposium), Jordanian International Chemical Engineers Conference, and Latin-American Process Safety Conferences. He is the founder of LUPATECH CANADA.

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## Additional program details:

- This program is 16 hours long. (4 days x 4 hrs each is also available).
- International standards (CCPS, API) are used in this training.
- Completion certificate available
- Training available virtual & on-site for larger groups.

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## Information & Registration :

- Email us: [german@lupatechltd.ca](mailto:german@lupatechltd.ca)