

INTRODUCTION TO CONTROLS HAZARD & OPERABILITY (HAZOP)



PROFESSIONAL DEVELOPMENT:

One classroom day providing .8 CEU (Continuing Education Units) or 8 PDH (Professional Development Hours)



BENEFITS OF THE INTRODUCTION TO CONTROLS HAZARD & OPERABILITY (HAZOP) TRAINING WORKSHOP:

- Participants will develop the knowledge and skills, through the use of interactive case studies, necessary to successfully complete a CHAZOP
- By the end of the exercises participants will understand what is involved in the organization, participation and preparation of their own CHAZOP session
- A comprehensive workbook and reference guide will be supplied



COURSE OVERVIEW:

This 1-day workshop is designed to deliver expert instruction on the technical content of a CHAZOP session and why they are performed. This includes understanding the principles behind each of the major methods (CHAZOP, What-if? and FMEA) and the fundamentals on CHAZOP methodology, noding, team composition and preparation for a CHAZOP session.



PREREQUISITES OR RELATED COURSES:

It is recommended that participants have completed the LOPA Workshop.



WHO SHOULD ATTEND?

- Automation technologists and engineers
- IT professionals
- Automation suppliers and vendors
- Supervisors, managers and engineers responsible for CHAZOP studies



COURSE OUTLINE:

- I. WHAT IS A CHAZOP?
- II. CHAZOP CHOICES
- III. METHODOLOGY
- IV. COURSE EXERCISE #1
- V. DOCUMENTATION
- VI. TEAMS
- VII. COURSE EXERCISE #2
- VIII. CHAZOP PREPARATION



THE ACM EXPERIENCE:

Our courses and workshops are experiential, interactive and provide participants with practical knowledge and tools that can be immediately applied back at work.



COURSE TESTIMONIALS:

Here are a few quotes from over 3,300 participants we've trained;

- *"Very helpful instruction and activities in this course helped me get what I was looking for from it!"*
Project Coordinator
- *"The instructor was very interactive, encouraged discussion and welcomed feedback."*
Process Engineer
- *"Great course! The instructor made the course very enjoyable. With their wealth of knowledge and experience they could answer all of the questions, as well as provide a real life situation in which it applied."*
New Grad EIT
- *"Great course content, coverage and length. Superb instructor who presented material as it applies to real world scenarios."*
I&C Engineer



COURSE INSTRUCTORS:



Malcolm Harrison

B.Sc. Mech. Eng., P.Eng., TÜV (Rheinland) F.S. Expert / Instructor

Mr. Harrison is a P.Eng. with over 40 years' experience in Instrumentation and Controls. Malcolm spent over 35 years with Shell and has diversified upstream and downstream experience in the heavy oil, offshore, refining, chemicals and oil & gas processing sectors. He is an experienced SIL Determination and CHAZOP facilitator and has worked on billion dollar projects ensuring horizontal I & C alignment between multiple EPCMs. Malcolm is a TÜV Functional Safety Expert and leads training workshops globally for ACM.



Guillermo Pacanins

B.Sc. Elec. Eng., P. Eng., TÜV (Rheinland) F.S. Senior Expert / Instructor

Mr. Guillermo Pacanins is an Electrical Engineer with over 27 years of experience with knowledge in Process Controls and Functional Safety in the process industry. He has taught several courses in Process Automation to some of the largest companies in the world. With Mr. Guillermo's excellent communication and leadership skills, combined with his in-depth understanding of Process Safety Engineering makes him a successful functional safety analyst/educator.

Guillermo is a TÜV Functional Safety Senior Expert and teaches several functional safety workshops globally for ACM. Also, Guillermo has a Process Safety Practice Certificate from Texas A&M University, Mary Kay O'Connor Center for Process Safety.

[View instructor profiles online.](#)

CONTACT FOR FURTHER INFORMATION: info@acm.ca

CALL TOLL FREE AT 1-877-264-9637

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<http://www.acm.ca/institute-of-hazard-prevention/private-courses>

