

## PHA / HAZOP LEADERSHIP WORKSHOP

	COURSE #	COURSE NAME	LOCATION	DATE
<b>2011</b>	011-422	PHA/HAZOP Leader	Calgary, AB	Mar 2-4
	011-430	PHA/HAZOP Leader	St. John's, NL	Mar 9-11
	011-449	PHA/HAZOP Leader	Calgary, AB	Mar 30-Apr 1
	011-432	PHA/HAZOP Leader	San Diego, CA	Apr 6-8
	011-468	PHA/HAZOP Leader	St. John's, NL	Apr 27-29
	011-442	PHA/HAZOP Leader	Calgary, AB	May 4-6
	011-486	PHA/HAZOP Leader	Calgary, AB	June 1-3
	011-452	PHA/HAZOP Leader	San Diego, CA	June 8-10
	011-700	PHA/HAZOP Leader	St. John's, NL	June 22-24
	011-462	PHA/HAZOP Leader	Calgary, AB	July 6-8
	011-472	PHA/HAZOP Leader	San Diego, CA	Aug 3-5
	011-707	PHA/HAZOP Leader	Calgary, AB	Aug 10-12
	011-713	PHA/HAZOP Leader	St. John's, NL	Aug 31-Sept 2
	011-482	PHA/HAZOP Leader	Calgary, AB	Sept 14-16
	011-492	PHA/HAZOP Leader	San Diego, CA	Oct 5-7
	011-723	PHA/HAZOP Leader	Calgary, AB	Oct 19-21
	011-728	PHA/HAZOP Leader	St. John's, NL	Nov 2-4
	012-402	PHA/HAZOP Leader	Calgary, AB	Nov 9-11
012-412	PHA/HAZOP Leader	San Diego, CA	Dec 7-9	

Course Fee: **\$1,875 CDN** per student

The course fee includes registration, lunch and refreshments, and course materials. Price is exclusive of applicable taxes. Courses held in the U.S are billed in U.S. dollars.

## PHA / HAZOP LEADERSHIP COURSE OBJECTIVE

This 3-day PHA / HAZOP course is designed to deliver expert instruction on how to successfully plan and execute Process Hazards Analysis (PHA) studies efficiently and effectively. This includes understanding the principles behind each of the major PHA methods (HAZOP, What-if?, Checklist, FMEA), learning how to deal with challenging personalities within the PHA team and how to avoid common pitfalls and traps so your PHA studies run smoothly.

## WHO SHOULD ATTEND THE PHA / HAZOP LEADERSHIP WORKSHOP?

- ◆ PHA / HAZOP Team Leaders & scribes
- ◆ Health & Safety / HSE professionals
- ◆ Process Safety Management (PSM) / Loss Management specialists
- ◆ Supervisors, managers and engineers responsible for PHA studies

## PHA / HAZOP LEADERSHIP COURSE INSTRUCTOR

### Mr. Marcel Leal-Valias, CET

Mr. Leal-Valias has 47 years experience in Engineering, Process Design & Drafting, mechanical maintenance, and project management. Mr. Leal-Valias has been a Piping Manager, Construction Site Manager, and Project Manager and for the last 15 years, he has developed and become an internationally respected Process Hazards Analysis (PHA/HAZOP) trainer and facilitator performing hundreds of PHA studies for all types of facilities.

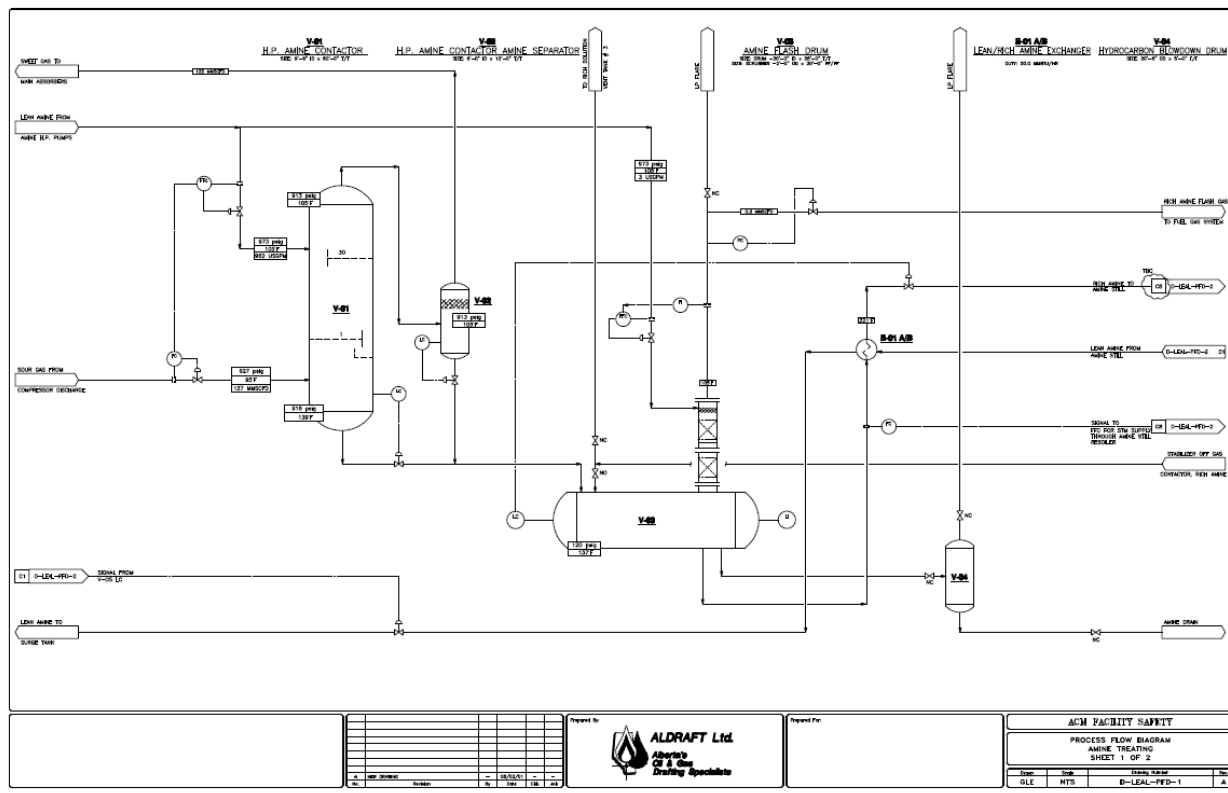
## PHA / HAZOP TRAINING COURSE AGENDA

Three (3) days of combined classroom instruction and workshop exercises, led by one of Canada's most well known and respected PHA Chairmen, Mr. Marcel Leal-Valias.

Day 1	Day 2	Day 3
Course Objectives Quantitative & Qualitative Hazard Analysis Overview of HSE Hazard Management Elements of Facility Risk PHA Teams PHA Methods - HAZOP - Preliminary Hazards Analysis - Checklist Analysis - What-if? Analysis - Checklist / What-if? Analysis - FMEA	Method Selection Criteria PHA Documentation Issues PHA Leadership - PHA Facilitation Skills - Team Leader Qualifications - PHA Leader Responsibilities - PHA Group Dynamics PHA Management - Defining Scope & Objective - Estimate Time Requirements - Documenting the Study PHA Workshop - HAZOP "practice" study	PHA Workshop (continued) - HAZOP "practice" study - What-if? "practice" study

## PHA / HAZOP WORKSHOP EXERCISE EXAMPLE

In addition to expert instruction from an experienced, professional PHA facilitator, in the afternoon of Day 2 and for Day 3, you will form a study team with other participants and take turns leading the team through “practice” HAZOP and What-if sessions. The instructor will coach you and provide feedback on your performance. Students will have the opportunity to prepare the drawings, populate the software and facilitate the studies using drawings such as the one below. By the end of the exercises students will be able to facilitate their own HAZOP and What if sessions.



### CONTACT ACM TO REGISTER



Registration form available at: [www.acm.ab.ca/register](http://www.acm.ab.ca/register)

Contact Jacqueline Schmautz for further information at [jschmautz@acm.ab.ca](mailto:jschmautz@acm.ab.ca) or Anton Li at [ali@acm.ab.ca](mailto:ali@acm.ab.ca)

Call toll free at 1-877-264-9637

- *ACM Facility Safety is a recognized global provider of Process Safety training, tools and methodologies*
- *ACM prides itself on neutral, third party unbiased workshop oriented training sessions developed from real life experiences of our instructors*
- *Our instructors have lived and implemented all phases of the IEC 61511 Safety Lifecycle during their careers at some of the world's largest operating companies*
- *Our lead instructors are practitioners with industry experience and are available for private in-house sessions at your facilities*

**OUR LEAD INSTRUCTORS**

"We developed these courses and workshops based on real life situations"	"Global Expertise"	"Lived all phases of the Safety Lifecycle"
 <p><b>Malcolm Harrison, B.Sc. Mech. Eng., P.Eng., TÜV F. S. Expert</b></p> <p>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 midstream experience in the heavy oil, offshore, refining and gas processing sectors. He is an experienced SIL Determination facilitator and has worked on billion dollar projects ensuring horizontal I &amp; C alignment between multiple EPCMs. Malcolm is a TÜV Functional Safety Expert and leads training workshops globally for ACM.</p>	 <p><b>Marcel Leal-Valias, CET, PHA/PSM Expert</b></p> <p>Mr. Leal-Valias has 47 years experience in Engineering, Process Design &amp; Drafting, mechanical maintenance, and project management. Mr. Leal-Valias has been a Piping Manager, Construction Site Manager, Project Manager and for the last 20 years, he has developed and become an internationally respected Process Hazards Analysis (PHA/HAZOP) trainer and facilitator performing hundreds of PHA studies for all types of facilities. Mr. Leal-Valias has a broad operational understanding of all exploration, production and refining facets of the oil and gas industry as a result of 45 years spent in international postings in Brazil, Australia, and Canada.</p>	 <p><b>Ken Bingham, CET, TÜV F. S. Expert</b></p> <p>Mr. Bingham is the Principal of ACM Facility Safety, Chief Technology Officer and a TÜV certified Functional Safety Expert. His background is in engineering design and management, involving safety, instrumentation, electrical and control systems. With Ken's 27 years on the client side, integration side and the SIL consulting side, he brings a holistic and practical perspective. Mr. Bingham has participated on ISA S84 SIL standard committees, has presented numerous papers and courses on SIL Analysis and is the Chief Technical Architect for ACM's field proven, IEC 61511 compliant Safety Integrity Level (SIL) Life Cycle tool, SilCore™ the only tool in the world that prepares you in real time for loss of safeguards and ACM's MP Real-time risk exposure tool with contingency planning.</p>