

## Introduction to LOPA Training

### COURSE DESCRIPTION

R4Risk's Introduction to LOPA training is a one-day course that covers the principles underlying LOPA and its use in risk management for hazardous events. This includes the identification and assessment of risk management controls and the determination of control adequacy and risk tolerance. The course is delivered across two half-day sessions.

### WHO SHOULD ATTEND?

The Introduction to LOPA training is designed for those who will be facilitating a stand-alone LOPA or follow-on study to a HAZOP, such as process safety engineers / managers and production process engineers etc.

### COURSE CONTENT

Introduction to LOPA training covers a range of essential topics, including:

- Overview of LOPA principles, history and terminology
- When and where to apply LOPA in process safety
- Identifying consequences, using a risk matrix
- Defining risk tolerance for high consequence scenarios
- Determining initiating event frequencies, conditions and probability of failure on demand (PFD)
- Estimating the frequency of unmitigated consequences
- Identifying independent protection layers (IPLs) and their PFD
- Determining the frequency of mitigated consequences and any necessary additional IPLs
- Guidance on documenting LOPA results, including LOPA spreadsheets.

For more details, please contact our office.



### LEARNING OUTCOMES

At the completion of the training, trainees will have been provided with the knowledge to understand the fundamentals of LOPA. Learning outcomes include:

- Understand the purpose, structure and key concepts of Layers of Protection Analysis (LOPA)
- When to apply the LOPA technique
- Apply each step of the LOPA process, from scenario development to risk evaluation
- Distinguish between different types of Independent Protection Layers and assess their adequacy
- Use LOPA to support effective management of major hazard risks.



### IN-HOUSE TRAINING

If you have several colleagues interested in this course, R4Risk can provide in-house training.

Please contact our office to discuss your requirements.

### COST

The cost of this training is \$1,375 per participant (incl. GST) or \$1,100 for 2 or more participants from the same organisation. This includes the supply of comprehensive training material.

### FURTHER DETAILS

For upcoming course dates and registration details, please refer to the [R4Risk website](https://www.r4risk.com.au) or reach out to us [training@r4risk.com.au](mailto:training@r4risk.com.au).