



ERSG/Prod/Serv/FS/003/09

SUBJECT:  
HAZOP STUDY

**OUR SERVICES COVER THE FOLLOWING AREAS:**

- Process Hazard Analysis
- Enterprise Risk Management
- Project Management
- RUBI-Software
- Business Continuity Systems
- Process Safety Management
- Risk Training Solutions



# HAZARD & OPERABILITY STUDY [HAZOP]

## Introduction

*Risk Management Solutions for Dynamic and Progressive Industry*

HAZOP is a highly structured hazards identification tool. It is extremely basic in its approach and makes practically no assumptions. HAZOP methodology is so widely used that almost any PHA is also referred to as a HAZOP. With new designs, HAZOP's should be carried out as late as possible in order for it to be as complete as possible. With an existing facility, the HAZOP can be used at any time.

**You can also use a HAZOP for analyzing operating instructions, procedures and in batch operations.**

## Services

**ERSG can provide a full HAZOP study of any part of or whole plant for most industry categories:**

ERSG's Risk Division facilitates your HAZOP study in a three-step manner. We will first review the respective process safety information along with the scope and objectives of the project. This is followed by a series of onsite meetings where the facilitator guides the team to identify the hazards associated and assists them in analyzing these scenarios further. Post meeting, the facilitator provides a report that includes all the findings and recommendations of this study.

# OUR SERVICES COVER THE FOLLOWING METHODS

## Methodology

**The HAZOP methodology consists of the following 8 steps;**

1. Collect applicable documents and drawings.
2. Break facility into manageable sections (Nodes).
3. Prepare list of Parameters and Operations to be examined.
4. For each Node create Deviations.
5. List and record causes for each Deviation.
6. List and record Consequences for each Cause.
7. List and record Safeguards or Controls that may prevent either the Cause or the Consequence.
8. List any future Actions or recommendations you think should be implemented.

## CONTACT DETAIL

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## HAZOP SOFTWARE TOOL



The **Lihou™** software is most frequently employed to record and manage Hazop Studies and easily configured for use in other familiar methodologies such as Process Hazards Analysis (PHA), check-list driven Hazard Identification Reviews (HazId), Risk Assessment Studies, SIL Analysis, Failure Mode and Effect Analysis (FMEA and FMECA), etc.

**Requirements:**4Mb RAM, 2Mb Hard Disk, Windows®, 98, NT, 2000, XP.