



ERSG/Prod/Serv/FS/016/09

SUBJECT:  
STRUCTURED 'WHAT IF'  
ANALYSIS

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



# STRUCTURED 'WHAT IF' ANALYSIS (SWIFT)

## Introduction

*Risk Management Solutions for  
Dynamic and Progressive  
Industry*

The **Structured What-If Technique (WHAT IF TECHNIQUE)** study has been developed as an efficient alternative to HAZOP for providing highly effective hazards identification when it can be demonstrated that circumstances do not warrant the rigor of a HAZOP. WHAT IF TECHNIQUE can also be used in conjunction with or complementary to a HAZOP. The **Structured What If Checklist (WHAT IF TECHNIQUE)** is a thorough, systematic, multi-disciplinary team oriented analytical technique.

**WHAT IF Technique** like HAZOP requires the input of a team of process experts to evaluate the consequences of hazards, which might result from various potential failures, or errors they have identified.

## Services

ERSG provide a structured framework for conducting SWIFT studies which can also be an addition to HAZOP and other risk studies. The 10 areas covered in the service include the following:

1. Material problems (MP)
2. External effects or influence (EE/I)
3. Operating error and other human factors (OE&HF)
4. Analytical or sampling errors (A/SE)
5. Equipment/instrumentation malfunction (E/IM)
6. Process upsets of unspecified origin (PUUO)
7. Utility failures (UF)
8. Integrity failure or loss of containment (IF/LOC)
9. Emergency operations (EO)
10. Environmental release (ER)

## OUR SERVICE USES THE FOLLOWING METHOD AND SOFTWARE

## Methodology

The SWIFT methodology uses the following approach:

- Step 1: SET THE SCOPE
- Step 2: SET AIMS AND OBJECTIVES
- Step 3: UNDERSTAND THE PROCESS
- Step 4: BREAK INTO PIECES
- Step 5: PICK FIRST SECTION
- Step 6: PICK A QUESTION CATEGORY
- Step 7: READ THE DEFINITION
- Step 8: ASK QUESTIONS ETC.
- Step 9: USE THE CHECKLISTS
- Step 10: RECOMMENDATIONS
- Step 11: MOVE ON THE NEXT CATEGORY
- Step 12: RISK RANKING

## CONTACT DETAIL

Enterprise Risk Solutions  
Group Limited  
P O Box 751  
Albany Creek  
QLD 4037  
AUSTRALIA

Phone: +61 7 3325-0034  
Fax: +61 7 3325-2946  
E-mail: admin@ersg ltd.com

WEBSITE: [www.ersg ltd.com](http://www.ersg ltd.com)

## SWIFT 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.

