

# Risk Analysis

<b>CONTENTS</b> .....	vii
<b>Risk Analysis</b> .....	1
1.1 The Nature of Risk Analysis .....	2
1.2 The Cost of Risk .....	3
1.3 The Cost of Risk Analysis .....	5
1.4 Conclusion .....	6
<b>Risk and Human Behaviour</b> .....	7
2.1 Risk and Human Behaviour .....	7
2.2 Measuring Attitudes Towards Risk .....	9
2.3 Risk in Decision Making .....	17
2.4 Groups and Risk Taking .....	21
<b>Identifying Risk 1</b> .....	27
3.1 Important Features of Risk Identification .....	27
3.2 Types of Techniques .....	29
3.3 Physical Inspections .....	31
3.4 Checklists .....	34
3.5 Organisational Charts .....	41
3.6 Flow Charts .....	46
<b>Identifying Risk 2</b> .....	57
4.1 Hazard and Operability studies .....	57
4.2 Fault Trees .....	66
4.3 Hazard Indices .....	77
<b>Statistical Analysis of Risk 1</b> .....	85
5.1 Introduction .....	85
5.2 Gathering Data .....	85
5.3 Representation of Data .....	89
<b>Statistical Analysis of Risk 2</b> .....	105
6.1 Measures of Location .....	105
6.2 Measures of Dispersion .....	112
<b>Probability</b> .....	125
7.1 The Meaning of Probability .....	125
7.2 Derivation of Probabilities .....	126
7.3 Combining Probabilities .....	128
7.4 Probability Distributions .....	136
7.5 The Normal Distribution .....	142
7.6 The Binomial Distribution .....	148
<b>Report Writing</b> .....	155
8.1 Preparation for Report Writing .....	156
8.2 Format of the Report .....	159
8.3 Writing the Report .....	162
8.4 Oral Presentations .....	164
<b>INDEX</b> .....	167