Risk Assessment. A Practical Guide to Assessing Operational Risks

Description: A Risk-centric Approach The Future of the Safety Profession

The information and tools contained in Risk Assessment: A Practical Guide to Assessing Operational Risks should get into the hands and minds of every practicing Environmental, Health and Safety (EH&S) Professional. The biggest risk to an organization is not taking a risk-based approach to protecting people, property and the environment. Organizational confidence in assessing operational risks will come when adopting and building upon the principles and learning’s that come from these author’s body of work. Defining what Safe looks like must become the future of our profession.

Dave Walline, CSP Committee Chair, ASSE Risk Assessment Institute 2013–2015

Risk Assessment: A Practical Guide to Assessing Operational Risk provides the fundamentals on risk assessment, with practical applications, for undergraduate and graduate students and employed safety, health, and environmental professionals who recognize that they are expected to have risk assessment capabilities.

This book fills a void. No other textbook has been written as a primer for students and employed safety professionals that covers the fundamentals of risk assessment and emphasizes taking a practical approach in the application of the techniques. In addition, the book addresses seven of the Accreditation Board for Engineering and Technology (ABET) criteria for safety programs.

Over time, risk assessments have been given more prominence as an element in an operational risk management system. This text will serve the needs of professors at a university level who sense the need for their students to have knowledge and capability with respect to risk assessment. It will also serve as a primer for employed safety professionals who need a practical guide on various risk assessment techniques.

Risk assessment methods including task analysis, job risk assessment, preliminary hazard analysis, failure mode and effects analysis, what-if analysis, and bow-tie analysis, as well as specific applications including design safety reviews, ergonomic risks, food safety, organizational risk assessment, and project risk are covered in a step by step approach.

Including numerous interactive exercises, links, videos, and downloadable risk assessment tools this textbook can be used by undergraduate and graduate students and employed safety, health, and environmental professionals who recognize that they are expected to have risk assessment capabilities.

Georgi Popov, PhD, QEP, CMC is an associate professor at the University of Central Missouri where he teaches risk assessment. His research interests include industrial hygiene, safety management, risk assessment, PtD, air quality, alternative fuels, LEAN Six Sigma practices, and business aspects of Environmental, Health and Safety. His experience is unique with both civilian and military environmental, health and safety programs.

Bruce K. Lyon, CSP, P.E., ARM, CHMM is Director of Risk Control Services for Hays Companies in Kansas City and has over 30 years of experience conducting and facilitating operational risk assessments while working in the consulting and insurance industries. He holds a B.S. Degree in Industrial Safety and M.S. Degree in Occupational Safety Management from University of Central Missouri.

Bruce D. Hollcroft, CSP, ARM, CHMM is Director of Risk Control Services for Hays Companies in the western United States and has over 30 years of risk consulting, including three years in New Zealand. He holds a B.S. in Industrial Safety, and has completed graduate studies toward an M.S. in Safety Management from the University of Central Missouri.

Contents: Preface xvii

Foreword xxi
1 Risk Assessments: Their Significance and the Role of the Safety Professional
Fred A. Manuele

1.1 Objectives 1
1.2 Introduction 1
1.3 What is a Risk Assessment? 2
1.4 Activities at the American Society of Safety Engineers (ASSE) 2
1.5 An Example of a Guideline that gives Risk Assessment due Recognition 3
1.7 ANSI/ASSE Z590.3–2011: Prevention through Design: Guidelines for Addressing Occupational Hazards and Risks in Design and Redesign Processes 4
1.8 THE ANSI/ASSE Z690–2011 Series 6
1.9 ANSI B11.0–2015: Safety of Machinery. General Safety Requirements and Risk Assessment A Standard of Major Consequence 7
1.10 European Union: Risk Assessment, 8
1.12 Additional European Influence 9
1.14 Certain Governmental Views 11
1.15 Canada 12
1.16 Fire Protection 13
1.17 Developments in Aviation Ground Safety 13
1.18 OSHA Requirements 14
1.19 EPA Requirements 15
1.20 The Chemical Industry: The Extensive Body of Information 16
1.21 Conclusion 16
Review Questions 16
References 17

Appendix 1.A: A List of Standards, Guidelines, and Initiatives That Require or Promote Making Risk Assessments: Commencing with Year 2005 18

2 Risk Assessment Standards and Definitions 23
Bruce Hollcroft & Bruce K. Lyon
2.1 Objectives 23
2.2 Introduction 23
2.3 The Need for Risk Assessments 24
2.4 Key Standards Requiring Risk Assessments 24
2.5 OSHA Compliance and Risk Assessments 24
2.6 Consensus Standards Requiring Risk Assessment 27
2.8 ISO 31000/ANSI/ASSE Z690 Risk Management Series 28
2.9 ANSI/ASSE Z590.3–2011, Prevention through Design 29
2.10 ANSI B11.0 Machine Safety 30
2.11 NFPA 70E 31
2.13 Key Terms and Definitions 32
2.14 Summary 46
Review Questions 47
References 47

3 Risk Assessment Fundamentals 49
Bruce Hollcroft & Bruce K. Lyon
3.1 Objectives 49
3.2 Introduction 49
3.3 Risk Assessment within the Risk Management Framework 50
3.4 Risk Assessments and Operational Risk Management Systems 51
3.5 The Purpose of Assessing Risk 52
3.6 The Risk Assessment Process 53
3.7 Selecting a Risk Assessment Matrix 53
3.8 Establishing Context 55
3.9 The Risk Assessment Team 57
3.10 Hazard/Risk Identification 58
3.11 Risk Analysis 59
3.12 Risk Evaluation 60
3.13 Risk Treatment 61
3.14 Communication 61
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit

http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

Product Name: Risk Assessment. A Practical Guide to Assessing Operational Risks
Web Address: http://www.researchandmarkets.com/reports/3609798/
Office Code: SCG3LZKG

Product Format
Please select the product format and quantity you require:

Quantity
Hard Copy (Hard Back): [ ] USD 97 + USD 29 Shipping/Handling

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: [ ] Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof
First Name: __________________________ Last Name: __________________________
Email Address: * __________________________
Job Title: __________________________
Organisation: __________________________
Address: __________________________
City: __________________________
Postal / Zip Code: __________________________
Country: __________________________
Phone Number: __________________________
Fax Number: __________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account number</td>
<td>833 130 83</td>
</tr>
<tr>
<td>Sort code</td>
<td>98-53-30</td>
</tr>
<tr>
<td>Swift code</td>
<td>ULSBIE2D</td>
</tr>
<tr>
<td>IBAN number</td>
<td>IE78ULSB985330833103083</td>
</tr>
<tr>
<td>Bank Address</td>
<td>Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.</td>
</tr>
</tbody>
</table>

If you have a Marketing Code please enter it below:

Marketing Code: ______________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World