

Contents

Kurt J. Engemann and Eirik B. Abrahamsen
Advances in safety risk management — V

Part I: Fundamentals

Holmes E. Miller and Kurt J. Engemann

1 Exploiting risk using a comfort-based approach — 3

Sophia F. Langley

2 Aligning safety science and econometric approaches to risk in complex safety-critical risk scenarios — 19

Sissel H. Jore, Eirik B. Abrahamsen, Henrik Langdalen
and Jon T. Selvik

3 Approaching transboundary wicked security risk problem through the lens of costs and benefits — 39

Kjell Hausken

4 The precautionary principle and game theory — 55

Torleif Husebø

5 Major accident risk and the use of cost-benefit analysis — 75

Peter Klein

6 iMaHP – Integrated assessment of quantitative and qualitative criteria for CIP security alternatives — 87

Part II: Applications

Chiara Vianello, Maria F. Milazzo and Giuseppe Maschio

7 Inspection Manager – An innovative tool for the selection of risk reduction measures in chemical and process industry — 107

Jon T. Selvik and Eirik B. Abrahamsen

8 How to achieve dynamic decision principles for maintenance planning of safety critical equipment in the oil and gas industry — 125

Krista N. Engemann and Cliff W. Scott

- 9 Toward the exploitative potential of practices in American stock car racing for safety and reliability — 141**

Henrik Langdalen, Eirik B. Abrahamsen, Jon T. Selvik and Hallvard Berg

- 10 An extended framework for prioritizing physical safety measures to handle flood and landslide risks — 155**

Rune Elvik

- 11 The changing role of cost-benefit analysis in road safety policy analyses in Norway — 173**

Maria F. Milazzo, Eirik B. Abrahamsen, Jon T. Selvik
and Håkon B. Abrahamsen

- 12 Safety investment decisions in the chemical industry: Common approaches and case studies — 189**

Reinhard Hutter and Christian Blobner

- 13 How to assess socio-political impacts of safety and security measures — 199**

Contributors — 227

Index — 229