
Contents

Acknowledgments	ix
Presentation of the <i>Institut pour la Maîtrise des Risques</i> (French Institute for Risk Management)	xi
Foreword	xiii
André LANNON	
Preface	xvii
Chapter 1. Understanding Cindynics	1
1.1. The approach	3
1.2. The method	4
1.3. The tools	6
1.4. Processes	7
Chapter 2. The Usefulness of the Cindynics Approach and Method	9
2.1. The situation, the founding concept of cindynics	9
2.2. Characterizing an activity situation	10
2.3. Qualifying a dangerous situation within an activity situation	12
2.3.1. Notion of a dangerous situation	13
2.3.2. Qualifying the dangerousness of a situation	15
Chapter 3. The Usefulness of Cindynics Tools	17
3.1. Qualification grid for risk sources that are not easily identifiable	17
3.2. Describing this type of risk source	18
3.2.1. At the global organization level	19

3.2.2. At the level of stakeholder groups	23
3.2.3. At the level of the individual actor	23
Chapter 4. Reducing Risk Sources	25
Chapter 5. A Comparative View Between Dependability and Cindynics	29
5.1. Introduction	29
5.1.1. Dependability	29
5.1.2. The cindynics approach	29
5.1.3. Dependability and cindynics seem to ignore or even compete with each other	30
5.2. What is a complex system?	30
5.3. Dependability approach – its strengths and limitations.	30
5.3.1. The scope of dependability.	30
5.3.2. Description of the system and its components	31
5.3.3. Functional analysis	31
5.3.4. Process hazard analysis.	31
5.3.5. Technological choices	31
5.3.6. Identification of failures – analyzing risks	32
5.3.7. Strengths and limitations of the approach.	32
5.4. The cindynics approach	32
5.4.1. The cindynic situation and its scope.	32
5.4.2. Strengths and limitations of the approach.	33
5.5. Conflict or complementarity of the two approaches	34
5.6. Conclusion	35
Chapter 6. Perspectives	37
Conclusion	41
Examples of Approaches	45
Appendix 1. Current Risk Management and its Shortcomings	99
Appendix 2. Notions of Interaction and Complexity	105
Appendix 3. The Grounded Theorization Method.	109
Appendix 4. Notions of Quantum Theory	111
Appendix 5. Summary of CSDs	115
Appendix 6. Archeocindynic Study	117

Appendix 7. Bhopal Study	137
Appendix 8. More Information About Bhopal	143
Appendix 9. Collection of Information on the Queen Mary II Gangway Accident	149
Appendix 10. Queen Mary Accident Cause Tree	157
Appendix 11. Collection of Information on the Deepwater Horizon Oil Rig Accident	159
Appendix 12. Synthesis Note of the Work of IMdR–AFPCN: “Vulnerability of Networks and Natural Disasters”	165
Appendix 13. The New Cindynics Concepts Training Course	167
Postface	169
Glossary	173
References	179
Index	185