

## TABLE OF CONTENTS

Introduction.....	1
List of abbreviations.....	3
<b>1 Security – the content and meaning.....</b>	<b>5</b>
1.1 Factors of security.....	7
1.2 The characteristics of the security environment and its impact on critical infrastructure.....	8
1.3 A strategic approaches to security.....	8
1.3.1 European Union strategy for fight against terrorism.....	9
1.3.2 Identification of new threats.....	10
<b>2 Critical infrastructure.....</b>	<b>13</b>
2.1 Definition of the term.....	13
2.2 Strategic documents of critical infrastructure in the European Union.....	14
2.2.1 Protection of critical infrastructure in the fight against terrorism.....	14
2.2.2 Green paper on a European programme for critical infrastructure protection.....	15
2.2.3 Communication from the Commission on a European programme for critical infrastructure protection.....	15
2.2.4 Council Directive on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection.....	16
2.3 Exogenous aspects of critical infrastructure protection.....	18
2.4 NATO and critical infrastructure.....	19
2.5 Critical infrastructure protection in European Union states.....	20
2.5.1 Czech Republic.....	22
2.5.2 Finland.....	23
2.5.3 France.....	24
2.5.4 Germany.....	25
2.5.5 Great Britain.....	26
2.5.6 Hungary.....	27
2.5.7 Italy.....	28
2.5.8 Netherlands.....	28
2.5.9 Norway.....	29
2.5.10 Poland.....	30

2.5.11	Slovak Republic.....	31
2.5.12	Spain.....	32
2.5.13	Sweden.....	33
<b>3</b>	<b>Security environment of critical infrastructure.....</b>	<b>34</b>
3.1	External security environment.....	34
3.1.1	External security macroenvironment.....	34
3.1.2	External security microenvironment.....	37
3.2	Internal security environment.....	38
3.2.1	Internal security macroenvironment.....	38
3.2.2	Internal security microenvironment.....	43
<b>4</b>	<b>Critical infrastructure risks.....</b>	<b>47</b>
4.1	Risk & uncertainty.....	47
4.2	Risk categories.....	49
4.3	Personnel risks.....	52
<b>5</b>	<b>Security analysis of critical infrastructure element.....</b>	<b>57</b>
5.1	Analysis of critical infrastructure element.....	57
5.2	Analysis of external security environment of critical infrastructure element.....	59
5.3	Analysis of internal security environment of critical infrastructure element.....	60
5.4	Identification and evaluation of security risks.....	63
<b>6</b>	<b>Integrated security system.....</b>	<b>66</b>
6.1	Mechanical barriers.....	70
6.1.1	Mechanical barriers of perimetric protection.....	71
6.1.2	Mechanical barriers of perimetric protection of natural character.....	74
6.1.3	Mechanical barriers of perimetric protection of technical character.....	74
6.1.4	Mechanical barriers of shell protection.....	92
6.1.5	Building opening fillings.....	93
6.1.6	Mechanical barriers of area protection.....	107
6.1.7	Mechanical barriers of item protection.....	107

6.2 Alarm systems.....	108
6.2.1 Electronic security systems.....	109
6.2.2 Electronic security systems of perimetric protection.....	114
6.2.3 Electronic security systems of shell protection.....	123
6.2.4 Electronic security systems of area protection.....	125
6.2.5 Electronic security systems of item protection.....	127
6.2.6 Central unit of electronic security system.....	129
6.2.7 CCTV surveillance systems.....	132
6.2.8 Access control systems.....	142
6.2.9 Alarm transmission systems and devices.....	143
6.3 Physical protection.....	145
6.3.1 Forms of physical protection.....	148
6.3.2 Methods of physical protection.....	152
6.4 Organization and regime measures.....	160
<b>Conclusion.....</b>	<b>165</b>
<b>List of references.....</b>	<b>166</b>
<b>List of pictures and tables.....</b>	<b>170</b>