

# Contents

<b>§ 1 Preliminaries .....</b>	<b>1</b>
A. Introduction into the Subject Matter: The Problem .....	1
B. Methodology .....	6
C. Aim of the Investigation .....	8
D. Course of the Investigation .....	9
E. Definitions .....	11
I. Pollution Reduction .....	12
II. Pollutant Release .....	12
III. Environment .....	12
IV. Environmental Information .....	12
V. Categories of Environmental Information .....	13
1. Disclosed by E-PTR and TRI .....	13
2. Not Disclosed by E-PTR and TRI .....	13
3. Ancillary Information .....	13
<b>§ 2 Development of Pollution Reduction Instruments .....</b>	<b>15</b>
A. Point of Departure .....	15
I. Market Failure Due to Externality: The Problem .....	15
1. Types of Externalities .....	16
2. Technological Externalities and Allocation .....	17
3. Externalities, Excludability, and Property Rights .....	18
a) Free Rider Behaviour (Positive Externalities) .....	19
b) Tragedy of the Commons (Negative Externalities) .....	20
4. Summary .....	20
II. Selected Economic Approaches to Market Failure .....	21
1. The Four Consumer's Surpluses (Hicks) .....	21
2. The Economics of Welfare (Pigou) .....	22
3. The Problem of Social Cost (Coase) .....	23
4. The Economic Dynamics of Environmental Law (Driesen) .....	24

<b>III. Environmental Innovation, Policy Mix and Capability Assessment .....</b>	<b>25</b>
1. Characteristics of Environmental Innovations: Double Externality and Regulatory Push/Pull .....	25
2. Intelligent Regulation by Use of a Policy Mix .....	26
3. Assessment of Instrument Capability .....	27
<b>IV. Interim Result .....</b>	<b>28</b>
<b>B. Command and Control Instruments .....</b>	<b>29</b>
I. Introduction .....	30
II. Direct Regulations for Production Processes and Products Under EU Laws .....	31
1. Performance Standards .....	31
2. Best Available Techniques .....	32
III. Direct Regulations for Production Processes and Products Under US Laws .....	33
1. Performance Standards .....	33
2. Best Available Techniques .....	35
IV. Interim Result .....	36
<b>C. Market-Based Instruments .....</b>	<b>37</b>
I. Introduction .....	38
II. Market Regulations Under EU Laws .....	39
1. Environmental Taxes .....	39
2. The Greenhouse Gas Emissions Trading Scheme .....	40
3. Environmental Liability .....	46
III. Market Regulations Under US Laws .....	48
1. Environmental Taxes .....	48
2. Emissions Trading .....	49
a) The Acid Rain Programme .....	49
b) Prospects for Federal Legislation on Greenhouse Gas Emissions Trading .....	50
3. Environmental Liability .....	51
IV. Interim Result .....	53
<b>D. Conclusion of the Chapter .....</b>	<b>55</b>
 <b>§ 3 E-PRTR Under EU Environmental Information Laws:</b>	
<b>The Collection .....</b>	<b>57</b>
<b>A. Structure of the E-PRTR .....</b>	<b>58</b>
I. Legislative History .....	58
1. Decision 2005/370/EC .....	58
2. Legislative Foundation of EPER: Article 15 (3) of Directive 96/61/EC .....	58
3. Decision 2000/479/EC .....	59
a) The Legal Framework of EPER .....	59
aa) Establishment and Reporting Requirements .....	59

bb) Reporting Cycle .....	60
cc) Implementation .....	60
dd) Data Dissemination .....	60
b) Essentials from EPER Reviews .....	61
aa) First EPER Review Report for the Year 2001 .....	61
bb) Second EPER Review Report for the Year 2004 .....	61
c) EPER as Distinguished from E-PRTR .....	62
4. Sixth Environmental Action Programme .....	62
a) Decision 1600/2002/EC .....	62
b) Mid-Term Review 2007 .....	63
5. Decision 2006/61/EC and the Relation to Other Pollutant Release Inventories .....	64
II. Current Legal Framework of the E-PRTR .....	65
1. Establishment, Definitions, and Covered Environmental Media .....	67
a) Establishment and Access to Information .....	67
b) Definitions for Particular Terms .....	68
aa) 'The Public' and 'Competent Authority' .....	68
bb) 'Installation', 'Facility', 'Site' and 'Operator' .....	69
cc) 'Substance' and 'Pollutant' .....	69
dd) 'Release' and 'Diffuse Sources' .....	69
ee) 'Off-Site Transfer' of 'Waste', 'Hazardous Waste' and 'Waste Water' .....	71
ff) 'Disposal' and 'Recovery' .....	73
gg) 'Reporting Year' .....	73
c) Content of the E-PRTR .....	73
2. Informational Structure .....	74
a) The Standard Setting .....	74
b) Ease of Public Access and Website Links .....	74
3. Acquisition of Information Through Reporting Requirements .....	75
a) Reporting by the Operator .....	75
b) Reporting by the Member States .....	78
c) Releases from Diffuse Sources .....	78
4. Assurance and Assessment of Information Quality .....	79
a) Quality Objectives According to Recitals .....	79
b) Legal Duties of Operators, Competent Authorities and Commission .....	79
c) Current State on Improvement of Information Quality ..	81
aa) Legal Deficits in Quality Assessment by the Commission .....	81
bb) Information Quality Improvement Through Eco-Management and Audit Scheme? .....	81

5. Further Provisions .....	83
a) Amendment Procedures .....	83
b) Guidance Document .....	83
c) Commission Review .....	83
d) Additional Information to be Reported by the Member States .....	84
e) Raising Awareness and Public Participation for Enhancement of E-PRTR .....	84
f) Committee Procedure, Amendments to Other Directives and Entry into Force .....	85
III. Delimitation of REACH and E-PRTR .....	86
1. General Aim and Scope .....	87
2. Acquisition of Information Through the 'No Data, No Market' Principle .....	87
3. Access to Information .....	89
a) Tasks of the European Chemicals Agency .....	89
b) Electronic Public Access: The REACH Inventory .....	89
c) Access to Information Held by the European Chemicals Agency .....	90
IV. Interim Result .....	91
B. Confidentiality and Mandatory Environmental Information Disclosure .....	92
I. Confidentiality Under Article 11 of Regulation (EC) 166/2006 .....	93
II. Differences of Directive 2003/4/EC as Regards Environmental Information Disclosure .....	95
1. Scope of 'Environmental Information' .....	95
2. Disclosure Addressees: 'Public Authorities' .....	96
3. Publication on Request .....	96
4. Interim Result .....	97
III. Member States' Refusal of a Request: Article 4 (1) of Directive 2003/4/EC .....	98
IV. Member States 'May Provide' Grounds for Refusal: Article 4 (2) of Directive 2003/4/EC .....	99
V. Commercial and Industrial Information and Other Intellectual Property: Article 4 (2), Sentence 1, (d) and (e) .....	100
1. Legal Contours of Commercial and Industrial Information .....	100
a) Link with the Member States' Concept of Confidentiality .....	101
b) Differences Between Commercial and Industrial Information .....	103
c) Prerequisites for the Presence of the Matter of Fact .....	103
aa) Related to a Business Activity .....	104

bb) Familiar Only to a Limited Group of People .....	104
cc) Kept Secret According to the Will of the Business Proprietor .....	105
dd) Legitimate Economic Interest for Confidentiality ..	105
ee) 'Area Specific' Modification of the Confidentiality Concept for Pollutant Releases? .....	106
d) Decision Competence of the Public Authority .....	107
e) Absolute and Relative Protection of Confidentiality ...	107
f) Interim Result .....	107
2. Ownership of Commercial and Industrial Information and Other Intellectual Property .....	108
a) Article 6 (1) TEU in Conjunction with Article 17 of the Charter .....	108
b) Article 6 (2) TEU .....	110
aa) State of the Law Under the Treaty of Nice .....	110
bb) State of the Law Under the Treaty of Lisbon .....	112
cc) The European Convention on Human Rights .....	112
(1) Case-Law of the European Court of Human Rights .....	113
(2) Literature .....	114
(3) Interim Result .....	114
c) Article 6 (3) TEU .....	115
aa) Case-Law of the ECJ .....	116
bb) Case-Law of the BVerfG and Literary Reactions ..	116
cc) Interim Result .....	118
d) Delimitation of Article 345 TFEU .....	118
e) The Derivation of the EU Fundamental Right to Property .....	119
aa) Incorporation of Fundamental Rights into EU Law: <i>Stauder v Ulm</i> .....	119
bb) Constitutional Traditions: <i>Internationale Handelsgesellschaft mbH</i> .....	121
cc) The 'Integral Part' Formula: <i>Nold v Commission</i> ..	123
dd) Fundamental Protection of Property: <i>Hauer v Land Rheinland-Pfalz</i> .....	124
ee) Interim Result .....	126
f) The Scope of Protection of the EU Fundamental Right to Property in Detail .....	127
aa) Selected Property Positions .....	127
(1) Capital as Such ie a Levy: <i>Schräder v     Hauptzollamt Gronau</i> .....	127
(2) Established and Running Enterprise: <i>Biovilac v EEC</i> .....	130
(3) Market Share: <i>Germany v Council</i> .....	131
(4) Interim Result .....	132

bb) Protection of Intellectual Property Rights .....	133
(1) Confidential Commercial and Industrial Information as Property and Fundamentally Protected? .....	133
(2) Registered Rights: <i>Grammophon GmbH v Metro GmbH and Co KG</i> .....	136
3. Right to Pursue a Freely Chosen Occupation: Article 15, 16 of the Charter and the ECJ .....	137
4. Interim Result .....	138
VI. Other Member States' Grounds for Refusal to Disclose Under Directive 2003/4/EC .....	138
1. Personal Data: Article 4 (2), Sentence 1, (f) .....	139
2. Information Requested Provided on a Voluntary Basis: Article 4 (2), Sentence 1, (g) .....	140
3. Confidentiality of Proceedings of Public Authorities: Article 4 (2), Sentence 1, (a) .....	141
4. International Relations, Public Security or National Defence: Article 4 (2), Sentence 1, (b) .....	141
5. Course of Justice: Article 4 (2), Sentence 1, (c) .....	141
6. Information Relating to the Location of Rare Species: Article 4 (2), Sentence 1, (h) .....	142
VII. Restrictions on the Member States' Refusal to Disclose: Article 4 (2), Sentences 2 to 4 .....	142
1. The Charter of Fundamental Rights of the EU: Article 37, 21, or 2? .....	143
2. Union Policy on the Environment: Article 191 TFEU .....	144
a) Introduction .....	144
b) High Level of Environmental Protection: Article 191 (2) TFEU .....	145
aa) Ranking and Principle .....	145
bb) Positioning and Comment .....	147
c) Pursuit of Environmental Objectives: Article 191 (1) TFEU .....	147
aa) Preserving, Protecting and Improving the Quality of the Environment (Indent 1) .....	148
bb) Protecting Human Health (Indent 2) .....	148
d) Duties to Take Account of: Article 191 (3) TFEU (Indents 1 and 3) .....	149
e) Legal Obligation of Article 191 (1) to (3) TFEU .....	150
3. Integration Principle: Article 11 TFEU .....	151
a) Content .....	152
aa) Substantive Requirements .....	152
bb) Procedural Requirements .....	154

b) Legal Effect .....	154
aa) Legal Obligation .....	154
bb) Judicial Control .....	155
4. Limitations of Other Fundamental Rights: Cases <i>Standley</i> and <i>Safety High Tech</i> .....	155
5. Judgments of the ECJ Under Directives 90/313/EEC and 2003/4/EC .....	157
a) Early Case-Law Under Directive 90/313/EEC .....	157
aa) Scope of Environmental Information I: <i>Mecklenburg v Kreis Pinneberg</i> .....	157
bb) Application of a Charge for an Informational Request: <i>Commission v Germany</i> .....	157
cc) Scope of Environmental Information II: <i>Glawischnig</i> .....	158
dd) Failure to Transpose Certain Obligations Under the Directive: <i>Commission v France</i> .....	158
ee) Unlawfulness of Implied Refusal: <i>Housieaux</i> .....	159
ff) Public Participation and Payment of Fees: <i>Commission v Ireland (I)</i> .....	160
b) Recent Case-Law Under Directive 2003/4/EC .....	162
aa) Failure to Transpose the Entire Directive: <i>Commission v Ireland (II)</i> .....	162
bb) Interpretation of Exceptions: <i>Commune de Sausheim v Azelvandre</i> .....	162
(1) Facts of the Case .....	162
(2) Observations of Third Parties before the Court ..	164
(3) Opinion of Advocate General Sharpston .....	165
(4) Judgment of the ECJ .....	167
(5) Appraisal of the Judgment .....	169
(6) Article 4 (2), Sentences 2 to 4 of Directive 2003/4/EC Revisited .....	171
a) Restrictive Interpretation Under Sentence 2 .....	171
b) Public Interest v Interest Served by Refusal Under Sentence 3 .....	172
c) Restrictions on Refusal for Information on Emissions/Releases Under Sentence 4 .....	173
aa) Restrictions on Confidential Commercial and Industrial Information .....	174
(1) Impairment .....	174
(2) Justification .....	175
bb) Other Restricted Grounds for Refusal .....	180
(1) Personal Data .....	180
(2) Information Requested Provided on a Voluntary Basis .....	181

(3) Confidentiality of Proceedings of Public Authorities .....	181
(4) Information Relating to the Location of Rare Species .....	181
cc) No Restrictions for Refusal on Residual Grounds? .....	182
(1) Intellectual Property Rights .....	182
(2) International Relations, Public Security or National Defence .....	184
(3) Course of Justice .....	184
VIII. Article 4 (3) to (5) of Directive 2003/4/EC .....	184
1. Publicly Accessible List of Criteria on How to Handle Requests .....	185
2. Availability of Environmental Information in Part .....	185
3. Refusal Notification to the Applicant .....	185
IX. Interim Result .....	186
C. Role of the European Environment Agency and Enforcement Mechanisms .....	187
I. European Environment Agency in a Nutshell .....	187
1. Establishment .....	188
2. Tasks and Organisation .....	189
3. Legal Capacity and Assignment of Sovereign Regulatory Competence .....	191
4. In Need of Sovereign Regulatory Competence? .....	193
II. Member States' Penalty Provisions .....	197
III. Access to Justice .....	198
1. At EU Level Under Regulation (EC) 1049/2001 .....	198
a) Application for Documents: Article 6 .....	199
b) Processing of Initial Applications: Article 7 .....	199
c) Processing of Confirmatory Applications: Article 8 .....	199
d) Article 263, Sentence 4 TFEU: <i>Locus Standi</i> and the Problem with 'Individual Concern' .....	200
e) Adding a Legal Reference to Articles 10 to 12 of Regulation (EC) 1367/2006? .....	203
aa) Scope of Administrative Acts and Omissions .....	203
bb) Request for Internal Review of Administrative Acts .....	204
cc) Criteria for Entitlement at Union Level .....	205
dd) Interpretation of 'Written Reply' and Access to the Court of Justice .....	205
2. At Member State Level Under Article 6 of Directive 2003/4/EC .....	206
IV. Interim Result .....	207
D. Excursus: Requested Access to Information About Other Pollutants and Ancillary Information .....	207
I. The Charter of Fundamental Rights of the EU: Article 42 .....	208
II. The Treaty: Article 15 (3) TFEU .....	209

III.	Secondary EU Law .....	210
1.	Regulation (EC) 1049/2001 .....	210
2.	Regulation (EC) 1367/2006 .....	212
IV.	Judgments of the EU Courts on the Right of Access to Information .....	213
1.	Origins .....	213
a)	Fundamental Principle of Transparency: <i>Netherlands v Council</i> .....	213
b)	Existence of a Principle of the Right to Information at EU Level: <i>Council v Hautala</i> .....	214
c)	Legal Effect of the Rules of Procedure: <i>Carvel and Guardian Newspaper Ltd v Council</i> .....	214
2.	Contours of Access to Information of EU Institutions .....	214
a)	Scope of Agency Discretion to Disclose Information: <i>Municipality of Hillegom v Hillenius</i> .....	214
b)	Mandatory and Discretionary Exceptions: <i>WWF UK v Commission</i> .....	215
c)	Administrative Burden: <i>Verein für Konsumenteninformation v Commission</i> .....	218
d)	Concrete Assessment and Statement of Reason: <i>Interporc GmbH v Commission</i> .....	219
e)	Documents Drawn Up by an Institution: <i>ClientEarth v Commission</i> .....	219
3.	Leadoff Contours of Exceptions for Information Disclosure .....	220
a)	Sensitive Documents: <i>Sison v Council</i> .....	220
b)	Release of Documents Containing Trade Secrets: <i>Akzo v Commission</i> .....	221
c)	Court Proceedings and Legal Advice: <i>Sweden and Turco v Council</i> .....	222
d)	Original 'Authorship Rule': <i>Petrie and Others v Commission</i> .....	223
e)	'Authorship Rule' Revisited: <i>Sweden and IFAW v Commission</i> .....	225
f)	Partial Access: <i>Mattila v Council and Commission</i> .....	227
4.	Liability for Breach of Confidentiality: <i>Adams v Commission</i> .....	228
V.	Interim Result .....	229
E.	Conclusion of the Chapter .....	230
§ 4	<b>TRI Under US Environmental Information Laws:</b>	
	<b>The Collection</b> .....	233
A.	Structure of the TRI .....	233
I.	Legislative History .....	234
1.	TRI as Congress' Response to the Chemical Catastrophe in Bhopal .....	235

2. Initial Legislative Action in 1986 .....	237
3. Significant Changes in TRI Throughout the 1990s .....	238
a) Pollution Prevention Act of 1990 .....	238
b) Inclusion of Federal Government Activities in 1993 .....	239
c) Expansion of Industrial Activities in 1997 .....	239
d) Adding Chemicals and Lowering Thresholds in 1999 .....	241
4. Significant Changes in TRI Throughout the 2000s .....	242
a) Burden Reduction Under the Bush Administration in 2006 .....	242
b) Burden Reduction Reversal Under the Obama Administration in 2009 .....	243
5. TRI and Its Relationship to Other Inventories/Programmes .....	243
6. Summary .....	244
<b>II. Current Legal Framework of the TRI .....</b>	<b>245</b>
1. Establishment, Definitions, and Covered Environmental Media .....	245
a) Establishment and Access to Information .....	245
b) Definitions for Particular Terms .....	246
aa) 'Person' and 'Administrator' .....	246
bb) 'Establishment', 'Facility' (Both Comprising 'Site') and 'Operator' .....	247
cc) 'Toxic Chemical' .....	248
dd) 'Release' and (Absence of) 'Diffuse Sources' .....	248
ee) 'Off-Site Transfer' of 'Waste' (Comprising 'Hazardous Waste' and 'Waste Water') .....	248
ff) 'Disposal' and 'Recovery' .....	249
gg) 'Reporting Year' .....	249
hh) Exclusive EPCRA/PPA Definitions: 'Environment', 'State' and 'Source Reduction' .....	250
c) Content of the TRI .....	251
d) Interim Result .....	251
2. Informational Structure .....	252
a) The Standard Setting .....	252
b) Ease of Public Access and Website Links .....	253
3. Acquisition of Information Through Reporting Requirements .....	254
a) Reporting by the Owner/Operator .....	254
b) Reporting to the Sister States .....	257
c) Interim Result .....	258
4. Assurance and Assessment of Information Quality .....	258
a) Legal Deficits as Regards Information Quality Objectives .....	258
b) Information Quality Improvement Through Environmental Self-Auditing? .....	259

c) Interim Result .....	262
5. Further Provisions .....	263
a) Amendment Procedures .....	263
b) Federal Regulations and Guidance Documents .....	265
c) Report of the Government Accountability Office .....	265
d) Information Collection from Sister States .....	266
e) Raising Awareness and Public Participation for Enhancement of TRI .....	267
f) Amendments to Other Federal Laws, Fiscal Budget and Entry into Force .....	268
6. Interim Result .....	268
III. Delimitation of TSCA and TRI .....	269
1. General Aim and Scope .....	269
2. Acquisition of Information .....	271
3. Access to Information .....	272
a) Tasks of the EPA .....	272
b) Electronic Public Access: The TSCA Inventory .....	272
c) Access to Information Held by the EPA .....	273
4. Interim Result .....	273
IV. Interim Result .....	274
B. Trade Secrets/Exemptions and Mandatory Environmental Information Disclosure .....	275
I. Trade Secret Under 42 USC § 11042 .....	276
1. Polluter's Authority to Withhold Information .....	276
2. Trade Secret Factors and Regulations .....	277
3. Providing Information to the EPA and Availability to the Public .....	277
4. Information on Adverse Effects, to Sister States, and to Congress .....	278
II. Differences to FOIA as Regards Environmental Information Disclosure .....	279
1. EPCRA's Relationship to Freedom of Information Act of 1966 .....	279
2. Scope of 'Environmental Information' .....	280
3. Disclosure Addressees: 'Federal Institutions' .....	281
4. Publication on Request .....	281
III. Sister States' Refusal of a Request: No Provision Under EPCRA .....	281
IV. No Sister States' Law Pre-Emption Under EPCRA: 42 USC § 11041 (a) .....	282
V. Trade Secrets and Other Intellectual Property: 40 Code of Federal Regulations § 350 .....	282
1. Legal Contours of Trade Secrets .....	283

a) Link with the Sister States' Concept of Confidentiality	286
b) Differences Between Non-Technological and Technological Trade Secrets .....	286
c) Prerequisites for the Presence of the Matter of Fact .....	287
aa) Use of Secret in a Trade or Business .....	287
bb) Extent to Which the Secret is Known .....	288
cc) Intra-Enterprise Maintenance of Secrecy .....	289
dd) Effect on the Relative Competitive Position .....	290
ee) Modification of the Trade Secrecy Concept for Toxics Releases .....	292
d) Decision Competence of the EPA .....	292
e) Absolute and Relative Protection of Confidentiality ..	293
f) Interim Result .....	294
2. Ownership of Trade Secrets and Other Intellectual Property .....	294
a) The Fifth Amendment of the US Constitution: The Takings Clause .....	294
aa) Introduction .....	295
bb) Is There a 'Taking'? .....	296
(1) Possessory Taking: <i>Loretto</i> .....	296
(2) Total Regulatory Taking: <i>Lucas</i> .....	297
(3) Investment-Backed Expectations Taking: <i>Penn Central</i> .....	297
(4) Land-Use Restriction Standards: <i>Nollan</i> and <i>Dolan</i> .....	298
cc) Is There 'Property'? .....	299
dd) Is the 'Taking' for 'Public Use'? .....	300
ee) Is 'Just Compensation' Paid? .....	300
b) Are Trade Secrets Property or Not? .....	300
aa) The History of Proprietary Interests in Information .....	301
(1) The Property Right Bundle .....	301
(2) Intangibility and the Positive Externality Problem of Information .....	301
(3) Information as Property in the Context of Intellectual Property .....	302
bb) The Governmental 'Taking' of Environmental Data in <i>Ruckelshaus v Monsanto Co</i> .....	303
(1) The Facts of the Case .....	304
(2) Background of the Challenged Statute: The Three Phases of FIFRA .....	305
(3) The Supreme Court's Assessment of the Property Interest .....	306
c) Different Approaches Towards Trade Secrets: Selected Literary Reactions .....	309

aa) Samuelson 1989: Information as Property Mischaracterises the State of the Law .....	309
bb) Bone 1998: Trade Secrets Are Property; No Trade Secret Law is Needed .....	311
cc) Chiappetta 1999: Property Status of Trade Secrets Is Far from Settled .....	311
dd) Epstein 2004: Analogy to the Physical Taking Under the Takings Clause .....	312
ee) Risch 2007: An Alternate Categorisation into Collateral and Substantive Property .....	313
ff) Lemley 2008: Trade Secrets Are Intellectual Property .....	314
d) Protection of Patents and Copyrights .....	315
3. Positioning, Comment, and Interim Result .....	317
VI. Other Sister States' Grounds for Refusal to Disclose under EPCRA .....	319
1. Is There Whistle-Blower Protection Available	
Under EPCRA? .....	319
a) Introduction .....	319
b) Procedure for Complaint .....	320
c) Proof of Retaliation .....	321
d) Whistle-Blowers' Identity Protection .....	321
2. Other Grounds to Refuse Reporting of Environmental Information .....	322
3. Interim Result .....	322
VII. Pre-Emption of the Sister States' Refusal to Disclose Due to Environmental/Health Protection .....	323
1. Implausibility of Recognition of Federal Constitutional Protection of the Environment .....	323
2. Possibility of Protecting the Environment Through Fundamental Law .....	324
a) Introduction .....	325
b) International and Other National Constitutional Protection of the Environment .....	325
aa) Stockholm Declaration in 1972 .....	325
bb) Rio Declaration in 1992 .....	326
cc) Comparative Fundamental Law Approach for Protection of the Environment? .....	326
c) Sister States' Constitutional Protection of the Environment .....	328
aa) General Comments .....	328
bb) Pennsylvania's Experience with Constitutional Environmental Protection .....	328
(1) Limits: Government versus Private Party .....	328

(2) Potentials: Private Party versus Government ...	329
(3) Practical Concordance: Environmental Protection versus Takings Clause .....	330
3. US Policy on the Environment: 42 USC §§ 4321, 4331, 4332 .....	331
a) Introduction .....	332
b) Maintaining Environmental Quality: 42 USC §§ 4321, 4331 (a) .....	333
aa) Preamble and Principle .....	333
bb) Positioning and Comment .....	334
c) Pursuit of Environmental Objectives: 42 USC § 4331 (b) and (c) .....	334
aa) Preserving, Protecting and Improving the Quality of the Environment .....	334
bb) Protecting Human Health .....	335
d) Duties to Take Account of: 42 USC § 4332 (1) and (2) (G), (A) and (B) .....	335
e) Legal Obligation and Integrating Aspects of 42 USC §§ 4331, 4332 .....	336
4. Case Law Rejecting a Federal Constitutional Right to a Healthy Environment .....	339
a) <i>Environmental Defense Fund Inc v Corps of Engineers</i> .....	339
b) <i>Tanner v Armco Steel Corp</i> .....	340
c) <i>Stop H-3 Association v Dole</i> .....	341
5. Interpreting the Fifth and Fourteenth Amendments as 'Right to a Healthy Environment'? .....	342
a) The Doctrine of Substantive Due Process .....	343
aa) <i>Lochner v New York</i> .....	343
bb) <i>Roe v Wade</i> and <i>Cruzan v Missouri Department             of Health</i> .....	344
cc) <i>Washington v Glucksberg</i> .....	345
b) Substantive Due Process in the Context of 'Right to a Healthy Environment' .....	345
aa) First Part of the Test: 'History, Legal Traditions, and Practices' of the Nation .....	346
bb) Second Part of the Test: 'Careful' Description of the Federal Constitutional Right .....	346
6. Pre-Emption of Trade Secrets .....	348
a) Different Outcome in <i>Ruckelshaus</i> Due to Constitutional Environmental Protection? .....	349
b) Pre-Emption of Information on Discharges into Air and Water .....	351
c) Pre-Emption of Information Provided to Health Professionals .....	351

VIII. Interim Result .....	352
C. Role of the US Environmental Protection Agency and Enforcement Mechanisms .....	354
I. Environmental Protection Agency in a Nutshell .....	354
1. Establishment .....	355
2. Tasks and Organisation .....	356
3. Legal Capacity and Assignment of Sovereign Regulatory Competence .....	357
II. TRI Violations and Penalty Enforcement .....	358
1. Civil and Administrative Penalties for Violation of 42 USC § 11023 .....	358
2. Review and Penalties with Respect to 42 USC § 11042 ...	359
a) Petition for Review of Trade Secret Claims .....	359
b) Civil, Administrative and Criminal Penalties for Trade Secret Violation .....	361
3. Procedural Aspects of Penalty Enforcement .....	362
4. EPA's Enforcement Policy and Trends .....	363
III. TRI Violations and Compliance Enforcement .....	364
1. Citizen Suits .....	365
a) Appraisal of <i>Locus Standi</i> in Citizen Suits for Environmental Matters .....	366
aa) Description of the Problem: <i>Lujan</i> and the Treatment of Citizen Suits .....	366
bb) Appraisal of the Supreme Court's Conclusions in <i>Lujan</i> .....	367
cc) Impact of <i>Lujan</i> .....	369
dd) Interim Result .....	370
b) Contextual Interpretation of Civil Actions Under 42 USC § 11046 (a) (1) .....	370
aa) TRI Violations Enabling Citizen Suits .....	370
bb) Wholly Past EPCRA Violations in Federal District Courts .....	371
cc) Federal Appellate Courts Contradictions on Wholly Past EPCRA Violations .....	372
dd) Supreme Court Judgment in <i>Steel</i> and Its Contextual Appraisal .....	375
ee) Positioning, Comment, and Interim Result .....	376
2. Compliance Enforcement for Health Professionals and State Suits .....	380
3. Procedural Aspects of Compliance Enforcement .....	380
IV. Interim Result .....	381
D. Excursus: Requested Access to Information About Other Pollutants and Ancillary Information .....	382
I. The First Amendment as 'Public's Right-to-Know'? .....	383
II. Freedom of Information Act of 1966 .....	384

1. Influence of Administration and Judicial Interpretation	385
2. The Latest Amendments of 2007	386
III. Judgments of the US Federal Courts on the Rights of Access to Information	388
1. Contours of Access to Information of Federal Agencies	388
a) Scope of Agency Discretion to Disclose Information: <i>Chrysler Corp v Brown</i>	388
b) Judicial Control <i>in Camera</i> and the Vaughn Index: <i>Vaughn v Rosen</i>	390
2. Contours of Exemptions for Information Disclosure	391
a) National Security and Internal Government Deliberations: <i>EPA v Mink</i>	391
b) Law Enforcement Records: <i>Frankel v Securities and Exchange Commission</i>	393
c) Trade Secret and Confidentiality: <i>Public Citizen Health Research Group v FDA</i>	395
d) Personal Privacy: The Balancing Approach in <i>Department of the Air Force v Rose</i>	397
e) Well Data: <i>Black Hills Alliance v United States Forest Service</i>	399
f) Separable Portion of a Record: <i>EPA v Mink</i>	400
3. Remaining Deficits in Substantive and Procedural Law: Two Case Law Samples	400
a) Substantive Law: <i>New York Public Interest Research Group v EPA</i>	400
b) Procedural Law: <i>Natural Resources Defense Council v US Department of Defense</i>	402
4. Liability for Breach of Confidentiality: <i>Chrysler Corp v Brown</i>	403
IV. Interim Result	404
E. Conclusion of the Chapter	405
<b>§ 5 Dissemination and Utilisation of Environmental Information</b>	409
A. Systemic Reshape Towards Mandatory Environmental Information Strategies	409
I. Information Economics of Mandatory Environmental Information Strategies	410
1. Tackling Market Failure Due to Information Deficits: Enabling Intelligent Choices	411
2. Reducing Transaction Costs for Information Collection and Dissemination	413
II. Overcoming the Environmental Information Capacity Shortage	414

<b>B. Drivers for Pollutant Release Reduction .....</b>	<b>415</b>
I. Regulatory Monitoring and (Threat of) Legislative Adjustments .....	416
1. At Above-State Level .....	416
2. Floor at Federal/EU-Level Allows for Local Regulatory Adjustments .....	417
II. Voluntary Change in the Behaviour of the Public Exclusive of Its Capacity as Polluter .....	417
1. Community Actions as 'Informal Regulation' .....	418
2. Economic Markets .....	419
a) Capital Markets .....	419
b) Labour Markets .....	420
c) Product Markets .....	421
d) Reputation Expenses and Brand Value .....	422
3. Judicial System .....	424
a) Tort Law Actions and Oversight Enforcement Actions against Competent Authorities .....	424
b) Direct and Indirect Citizen Enforcement Actions Against Polluter .....	424
III. Voluntary Change in the Behaviour of the Polluter Exclusive of Its Capacity as Public .....	426
IV. Amendments or Reinterpretations of Constitutional Principles .....	428
<b>C. Limitations of Mandatory Environmental Information Strategies and Instrument Assessment .....</b>	<b>428</b>
I. Two General Statements .....	429
1. The Narrow Scope and Potentially Misleading Volumes of E-PRTR and TRI .....	429
2. The Default of Unequal Results .....	430
II. Concrete Instrument Assessment of E-PRTR and TRI .....	431
1. Effectiveness .....	431
2. Legal Conformity .....	432
3. Enforcement Feasibility .....	433
4. Cost-Effectiveness .....	434
5. Political Enforceability .....	435
6. Innovation Potential .....	436
7. Further Environmental-Specific Strategic Requirements ..	437
<b>D. Conclusion of the Chapter .....</b>	<b>438</b>
<b>§ 6 Summary .....</b>	<b>441</b>
A. Preliminaries .....	441
B. Development of Pollution Reduction Instruments .....	442
C. Pollutant Release Inventories: E-PRTR and TRI .....	443
I. Categorising Environmental Information Disclosure in the EU .....	444

II. Categorising Environmental Information Disclosure in the US .....	445
III. Common Deficits of E-PRTR and TRI .....	446
IV. Role Model Solutions for the Opposite Programme .....	448
V. Requester-Driven Access to Environmental Information .....	448
D. Dissemination and Utilisation of Environmental Information .....	449
E. Outlook .....	449
<b>Bibliography .....</b>	<b>451</b>
<b>Table of Cases .....</b>	<b>471</b>
<b>Legislation &amp; Documents .....</b>	<b>477</b>