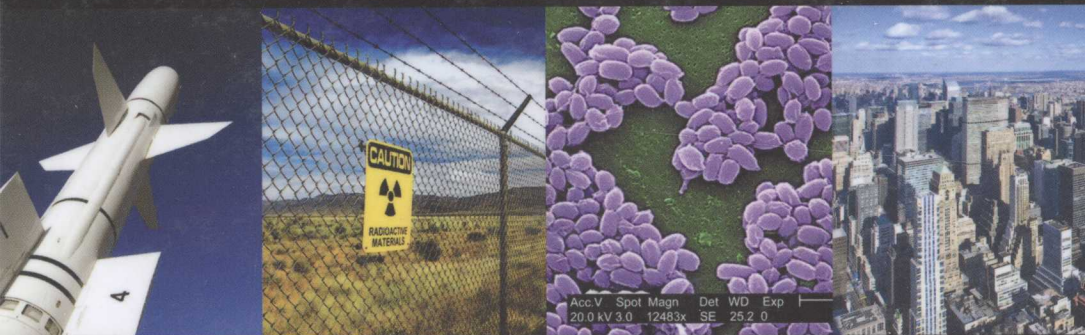


Terrorism and WMDs

Awareness and Response



John Pichtel



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John P. Bachtel

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Terrorism and WMDs

Awareness and Response

*To all of our nation's emergency responders.
May your courage and dedication serve as
an inspiration to future generations.*

PREFACE

Chance favors the prepared mind.

Pasteur

Terrorism as a tactic of violence and intimidation has been employed by individuals and groups against noncombatant targets for millennia; likewise, weapons of mass destruction have been in use throughout recorded times. However, with greater technical sophistication, man has, in recent decades, been capable of constructing weapons with more devastating effects, both physical and psychological, than ever previously witnessed.

Few references in awareness of chemical, biological, radiological, nuclear, and explosive (CBRNE) weapons provide a satisfactory discussion of the underlying chemical and biological processes occurring during a release incident; likewise, a delineation of public health impacts during the incident and beyond is often incomplete. This book is intended to serve as an introductory manual for awareness of CBRNE weapons with an emphasis on basic chemistry and biology, including microbiology, and human health. Adequate knowledge of the basic sciences is an essential component of responding to a CBRNE release, and a certain degree of proficiency is required to appreciate the reactions of chemicals at the incident site and within victims, and to formulate an appropriate response to the incident.

The chapters of this book can be divided into three categories. The first category (Chapter 1) provides an overview of the historical and ideological context of modern terrorism and CBRNE weapons. The second category (Chapters 2 through 7) delineates specific weapons, that is, CBRNE. Discussion is provided on the history of the use of each weapon type; the design, structure, properties, and behaviors of these weapons; impacts of CBRNE weapons on human health; and safety precautions for both emergency responders and the public. The third category (Chapters 8 and 9) addresses selected responder issues, specifically, the Incident Command System, personal protective equipment (PPE), and decontamination.

This work is not intended to be a complete guide for response to weapons of mass destruction. Such an effort is beyond the scope of a single book; in fact, printed works can only serve as the starting point to understanding CBRNE weapons and how to respond to intentional and

PREFACE

accidental releases. Training in the field, using real-world scenarios, PPE, and detection equipment is required to attain maximum proficiency for any response.

For the benefit of the reader, all terms provided in **boldface** are defined in the Glossary at the end of this book.

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Finally, special thanks to my students—your energy and curiosity always serve to motivate, challenge and inspire me.

AUTHOR

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CONTENTS

Preface	xix
Acknowledgements	xxi
Author	xxiii
1 Terrorism and WMDs	1
Introduction	1
Origins of Terrorism	2
Terror in Ancient Times	3
Medieval and Renaissance Periods	5
Nineteenth Century	5
Twentieth Century	6
Modern Terrorism	6
Recent CBRNE Terrorist Incidents	8
Terrorist Classifications	11
Potential Terrorist Targets	14
Weapons of Mass Destruction	14
Chemical Weapons	15
Biological Weapons	17
Radiological Weapons	18
Nuclear Weapons	19
Explosive Weapons	21
Trend of CBRNE Terrorism	22
Limitations to Terrorists in Use of CBRNE Materials	24
Fallacies Associated with Terrorist Attacks	25
Questions	27
References	27
2 Chemical Agents	29
Introduction	29
History of Chemical Weapons	30
Ancient China	30
Ancient Greece and Rome	31
The Renaissance	33
World War I	35
The Final Days of World War I	40

CONTENTS

The Interwar Years	43
World War II	44
Postwar	44
The Chemical Weapons Convention	45
Recent Events Involving Chemical Weapons	47
Chemical Weapons Types	48
Nerve Agents	48
Tabun	51
Sarin	52
VX	53
Destruction of VX Stockpiles	58
Choking Agents	58
Chlorine (Cl)	59
Phosgene	59
Diphosgene	61
Chloropicrin	62
Blister Agents	63
Sulfur Mustards	63
Disposal of Mustard Gas	66
Lewisite	68
Questions	70
References	71
 3 Toxic Industrial Chemicals	 75
Introduction	75
Recent History of TICs as a Weapons	76
Hazardous Materials	78
DOT Hazardous Materials Classes	80
Class 1—Explosives (49 CFR 173.50)	81
Class 2—Compressed Gases (49 CFR 173.115)	81
Class 3—Flammable and Combustible Liquids (49 CFR 173.120)	82
Class 4—Flammable Solids (49 CFR 173.124)	82
Class 5—Oxidizers and Organic Peroxides (49 CFR 173.127 and 173.128)	85
Class 6, Division 6.1—Poisonous/Toxic Materials (49 CFR 173.132)	86
Class 6, Division 6.2—Infectious Substances (49 CFR 173.134)	86
Class 7—Radioactive Materials	87

Class 8—Corrosive Materials (49 CFR 173.136)	87
Class 9—Miscellaneous Hazardous Materials (49 CFR 173.140)	88
Selected TICs and Relevant Properties	88
Anhydrous Ammonia	89
Effects of Ammonia on Humans	91
Flammability Hazards	93
Occupational Safety and Emergency Response	93
Regulations	97
Chlorine	97
Safety Issues	99
Regulatory Requirements	101
White Phosphorus	102
Safety Issues	102
Regulatory Requirements	103
Use as a Weapon	103
Flammable Liquids	104
Flammability and Explosion Considerations	105
Explosive Limits	105
Flashpoint	106
Autoignition Temperature	107
Vapor Pressure	107
Vapor Density	108
Solubility	108
BLEVEs	108
Health Effects and Routes of Exposure	110
Chronic Exposure	110
Corrosive Materials	111
Measurement of Acidity or Alkalinity	112
Common Acids and Bases	113
Sulfuric Acid	113
Hydrochloric Acid	113
Sodium Hydroxide	113
Other Hazards of Corrosive Materials	114
Transport of Corrosives	115
Responder Safety	116
Questions	116
References	117

CONTENTS

4 Biological Agents	121
Introduction	121
Categories of Bioterrorism Agents	122
History of Biological Weapons	123
World War I	125
The Interwar Years	126
World War II	128
Post-World War II	129
The Current Threat	131
Bacterial Diseases	133
Anthrax	134
The Agent	136
Clinical Manifestations and Symptoms	136
Diagnosis and Treatment	140
Recent Developments	141
Biowarfare and Terrorism	141
Viral Diseases	141
Smallpox	142
Clinical Manifestations/Symptoms	142
Treatment	143
Biowarfare and Terrorism	144
Biological Toxins	146
Ricin	148
Clinical Manifestations	148
Treatment	149
Biowarfare and Terrorism	149
Agroterrorism	150
Threats	151
Animal Diseases	152
Plant Pathogens	153
Zoonotic Diseases	156
Indicators of an Agroterrorism Event	156
Response to a Disease Event	157
Questions	157
References	158
5 Nuclear and Radiological Hazards	163
Introduction	163
Nuclear Weapons	164

History of Nuclear and Radiological Weapons	164
World War II	166
Postwar	168
Terrorist Use of Nuclear/Radiological Materials	176
Properties of the Atom	177
Elements and Atomic Structure	177
Isotopes	178
Radioactivity	179
Ionization: When Radiation Interacts with Matter	180
Forms of Radiation	182
Alpha Radiation	182
Beta Radiation	183
Gamma Radiation/X-Rays	184
Neutron Radiation	185
Measurement of Radiation	186
Measuring Emitted Radiation	186
Measuring Radiation Dose	186
Nuclear Reactions	187
Fission	187
Critical Mass	189
Fusion	190
Nuclear Weapon Designs	190
HEU Production	191
Plutonium Production	192
Types of Nuclear Weapons	192
Gun Type	192
Implosion Weapons	193
Thermonuclear Weapons	194
Improvised Nuclear Devices	196
Effects of Nuclear Detonations	197
Yield	197
Blast	198
The Mach Stem	200
Blast Effects on Humans	202
Thermal Effects	202
Prompt Radiation	203
Health Effects	204
Electromagnetic Pulse	205
Induced Radiation	206
Fallout	207

CONTENTS

Timeline of a Nuclear Detonation	209
Emergency Response to a Nuclear Detonation	210
Terrorism and Nuclear Devices	211
Global Nuclear Inventories	211
Nuclear Smuggling	213
Terrorism and Radiological Dispersal Devices	216
Radionuclides of Concern	217
Dispersal of Radioactive Material	219
Accidents with Radioactives	220
A Variation on the Dirty Bomb: The “Smoky Bomb”	222
Questions	223
References	223
 6 Explosive Hazards	 229
Introduction	229
Definition of Explosives	230
Types of Explosions	230
History of Explosives Development	231
Ancient Times to the Renaissance	231
Nineteenth Century	232
World War I	235
Interwar Years	235
World War II	236
Post–World War II	237
Characteristics of Explosives	238
Classification of Explosives	239
Rate of Decomposition	240
Low Explosives	241
Propellants	241
Pyrotechnics	241
High Explosives	241
Primary Explosives	243
Secondary Explosives	243
Tertiary Explosives	244
The Firing Train	244
Commercial and Military Explosives	246
Commercial Explosives	246
Black Powder	246
Nitroglycerin	247

Dynamite	249
Military Explosives	253
RDX	253
TNT	254
PETN	257
Use Forms of Explosives	258
Plastic Explosives	258
C-4	259
Semtex	260
Cast Explosives	260
Sheet Explosives	261
Emulsion Explosives	262
Slurry Explosives	262
Blasting Agents	263
Binary Explosives	264
Blasting Caps	264
Detonating Cord	265
Nonel Shock Tube	267
Safety Fuses	267
Effects of an Explosion	268
Blast Phase	268
Fragmentation Phase	270
Thermal Effect Phase	270
Explosives and Terrorism: Improvised Explosive Devices	270
Power Sources	270
Initiators	271
Charge	272
Switches	272
Fragmentation and Shrapnel	272
Recent Use of Improvised Explosive Devices	272
Afghanistan and Iraq	272
Over the Atlantic, 2009	274
London, U.K.	275
Oklahoma City, USA	277
Delivery of the IED	279
Questions	281
References	282

CONTENTS

7	Directed-Energy Weapons	285
	Introduction	285
	History of Use of DEWs	286
	Modern DEWs	287
	Lasers	287
	Effects of Lasers on Humans	291
	Classification of Lasers	295
	Use of Lasers as Weapons	296
	Advantages of Lasers as Weapons	300
	Technical Problems with Lasers (Dunn, 2005)	300
	Microwave Weapons	301
	Effects of Microwaves	303
	Use as Weapons	305
	Advantages of HPMs as Weapons	306
	Defenses against HPM Weapons	306
	Sonic Weapons	307
	Effects	308
	Weapon Types	309
	Criminal and Terrorist Use of DEWs	310
	Questions	311
	References	311
8	NIMS and the Incident Command System	315
	National Incident Management System (NIMS)	315
	NIMS Components	316
	Preparedness	317
	Communications and Information Management	317
	Resource Management	317
	Command and Management	317
	Ongoing Management and Maintenance	318
	National Integration Center	318
	Supporting Technologies	318
	Mutual Aid Agreements	318
	Summary of NIMS	319
	Incident Command System	320
	History of the ICS	321
	ICS Organization	322
	Command	323