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Standard Guide for Operational Guidelines for Initial Response to a Suspected Biothreat Agent¹

This standard is issued under the fixed designation X XXXX; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

The suspicion of a biothreat is a serious matter affecting public health, public safety, the economy and the general confidence of the people. The National Strategy for Homeland Security and subsequent architecture focuses homeland security efforts on preventing and disrupting terrorist attacks, protecting the American people and our critical infrastructure and key resources, responding to and recovering from incidents that do occur while continuing to strengthen the foundation of our Nation. As laid out by the National Response Framework, coordinated and synchronous response to suspected acts of bio-terrorism requires advance planning, including the equipping and training of emergency responders prior to an incident. The goal of this standard guide is to support national standards for responding to and collecting suspected biothreat agents with guidance centered on coordination among representatives of emergency response teams, including hazardous materials response teams, law enforcement, public health, including the Centers for Disease Control and Prevention (CDC) national Laboratory Response Network (LRN)², and the Federal Bureau of Investigation (FBI). This standard guide provides uniform guidance that covered in its entirety all of the following components: response planning, responder training, competency evaluation, proficiency testing, concept of operations, hazard assessment, threat evaluation, sample collection, field screening, risk communication and documentation for responding to visible powders suspected of being biothreat agents.

1. Scope

1.1 This guide provides decision-making considerations for response to incidents that may involve biothreats. It provides information and guidance for inclusion in response planning, and what activities to conduct during an initial response to suspected biothreat agents.

¹ This Guide is under the jurisdiction of ASTM Committee and is the direct responsibility of Subcommittee . Current edition approved XXX. XX, XXXX. Published XX XXXX.

² The CDC Laboratory Response Network is the network responsible for handling clinical specimens and environmental samples containing suspected biothreat agents

36 1.2 This guide addresses the fundamental requirements needed for development of a
37 biotreat sampling and screening capability within a jurisdiction or practice area to assure proper
38 involvement, communication and coordination of all relevant agencies.

39 1.3 This guide applies to those emergency response agencies that have a role in the initial
40 response to a biotreat incident. It should be used in emergency services response such as law
41 enforcement, fire department, hazardous materials, public health and emergency management
42 response actions.

43 1.4 This guide assumes implementation begins well before the recognition of a suspected
44 biotreat event and ends when emergency response actions cease or the response is assumed by
45 federal response teams.

46 1.5 This guide adheres to a risk-based response and the guidance is intended to be coupled
47 with the authority having jurisdiction's (AHJs) understanding of local vulnerability and
48 capability when developing its plans and guidance documents on biotreat response.

49 1.6 This guide is compliant with the National Incident Management System (NIMS) and
50 uses Incident Command System (ICS) common terminology. Full compliance with NIMS is
51 recognized as an essential part of emergency response planning. In developing this standard,
52 every effort was made to ensure that all communications between organizational elements during
53 an incident are presented in plain language according to NIMS 2008. In keeping with this NIMS
54 requirement, key definitions and terms, using plain English, are incorporated

55 1.7 This guide shall be incorporated as a reference in Emergency Operation Centers (EOCs),
56 emergency operations plans (EOPs) and Multiagency Coordination Systems (MACS) to assist in
57 policy formation and development of strategic objectives consistent with the needs of the
58 Incident Commander (IC).

59 1.8 Documents developed from this standard guide shall be referenced and revised as
60 necessary and reviewed on a two-year cycle (at a minimum). The review shall consider new and
61 updated requirements and guidance, technologies, and other information or equipment that might
62 have a significant impact on the management and outcome of biological incidents.

63 1.9 *This guide does not purport to address all of the safety concerns associated with its use.*
64 *It is the responsibility of the user of this guidance document to establish appropriate safety and*
65 *health practices and determine the applicability of regulatory limitations prior to use.*

67 2. Referenced Documents

68 2.1 NFPA Standards:³

69 NFPA 471 Recommended Practice for Responding to Hazardous Materials Incidents,
70 1997 Edition

71 NFPA 472 Standard for Competence of Responders to Hazardous Materials/Weapons of
72 Mass Destruction Incidents, 2008 Edition

73 NFPA 1994 Standard on Protective Ensembles for Chemical/Biological Terrorism
74 Incidents

³ Available from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269—9101

75 NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity
76 Programs, 2007 Edition

77 2.2 IATA Standards:⁴

78 IATA PI 602 Infectious Diseases (Infectious Substances)

79 IATA PI 650 Shipping of Diagnostic Samples

80 IATA DGR 46th Edition, 2005

81 IATA DGR Addendum I, January 2005

82 IATA DGR Addendum II, March 2005

83 IATA DGR Addendum III, July 2005

84 2.3 Federal Government Regulations:⁵

85 DOT - 49 CFR, Parts 171-180, Hazardous Materials Regulations

86 DOT - 49 CFR 172 Subpart H, Transportation Training

87 DOT - [49 CFR 173](#), General Requirements for Shipments and Packagings

88 DOT - 49 CFR [178](#), Specifications for Packagings

89 EPA - [40 CFR 300](#), National Oil and Hazardous Substances Pollution Contingency Plan
90 (NCP)

91 EPA - [40 CFR 311](#), Worker Protection

92 NRC - [10 CFR 20](#), Standards for Protection against Radiation

93 NIOSH - [42 CFR 84](#), Respiratory Protective Devices

94 OSHA - 29 CFR 1910 Subpart Z and 29 CFR 1926 Subpart Z, Toxic and Hazardous
95 Substances

96 OSHA - 29 1910.1096 and 29 CFR 1926.53, Ionizing Radiation

97 OSHA - 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response
98 (HAZWOPER) standard

99 OSHA - 29 CFR 1910 Subpart I (Sections 132 to 139), Personal Protective Equipment

100 OSHA - 29 CFR 1910.1200, Hazard Communication

101 2.4 Federal Guidance:

102 FBI-DHS-HHS/CDC Coordinated Document, Guidance on Initial Response to a
103 Suspicious Letter/Container with a Potential Biological threat, November 2, 2004.

104 NIMS 2008 National Incident Management System⁶

105 Planning Guidance for Recovery Following Biological Incidents, Biological
106 Decontamination Standards Working Group, Subcommittee on Decontamination
107 Standards and Technology Committee on Homeland and National Security, National
108 Science and Technology Council, May 2009

109 NRF 2008 National Response Framework⁷

⁴ Available from the International Air Transport Association, 800 Place Victoria, PO Box 113, Montreal-H4Z 1M1, Quebec, Canada.

⁵ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, and also available online from Occupational Safety and Health Administration (www.osha.gov).

⁶ For access to document, go to www.fema.gov.

- 110 OSHA - CPL 02-02-073, [Inspection Procedures for 29 CFR 1910.120 and 1926.65,](#)
111 [Paragraph \(q\): Emergency Response to Hazardous Substance Releases](#)
- 112 EPA - Safety, Health, and Environmental Management (SHEM) Guide No. 44, Personal
113 Protective Equipment, October 2004
- 114 EPA - Safety, Health, and Environmental Management (SHEM) [Guideline No. 46,](#)
115 Respiratory Protection, dated October 2004
- 116 EPA - [Order 1460.1](#), Occupational Medical Surveillance Program, June 18, 1996
- 117 EPA [All Hazards Receipt Facility Screening Protocol](#) (EPA/600/R-08/105) September
118 2008
- 119 NIOSH Publication No. 2009-132: Recommendations for the Selection and Use of
120 Respirators and Protective Clothing for Protection Against Biological Agents
- 121 FBI Laboratory Publication: Handbook of Forensic Services 2003
- 122 DOT, current version, Emergency Response Guidebook (ERG)⁸
- 123 *2.5 ANSI Standards:*
- 124 ANSI Z41-1999: American National Standard for Personal Protection - Protective
125 Footwear
- 126 ANSI Z87.1-2003: American National Standard for Occupational and Educational
127 Personal Eye and Face Protection Devices
- 128 ANSI Z88.2-1992: American National Standard Practices for Respiratory Protection
- 129 ANSI Z88.10-2001: American National Standard for Personal Protection - Respirator Fit
130 Testing Methods
- 131 ANSI/ISEA Z89.1-2003: American National Standard for Personal Protection -
132 Protective Headwear for Industrial Workers Requirements
- 133 ANSI/Compressed Gas Association, CGA G-7.1-1997, Commodity Specification for Air
- 134 *2.6 ASTM Standards:*
- 135 ASTM E 2601-08: Standard Practice for Radiological Emergency Response
- 136 ASTM E2458-06: Standard Practices for Bulk Sample Collection and Swab Sample
137 Collection of Visible Powders Suspected of Being Biothreat agents from Nonporous
138 Surfaces
- 139 ASTM F 2412-2005: Standard Test Methods for Foot Protection
- 140 ASTM F 2413-2005: Specification for Performance Requirements for Foot Protection
- 141 *2.7 International Standards and Guidance:*
- 142 International Association of Fire Chiefs (IAFC) Guidance, Model Procedures for
143 Responding to a Package with Suspicion of a Biological Threat, October 2008
- 144 ISO/IEC Standard 17043 Conformity assessment -- General requirements for
145 proficiency testing
- 146

⁷ For access to document, go to www.fema.gov.

⁸ Available from <http://hazmat.dot.gov/pubs/erg/gydebook.htm>.

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148 **3. Terminology**

149 3.1 *Definitions:*

150 3.1.1 *aseptic technique, n*—operation or performance of a procedure or method under
 151 carefully controlled conditions to reduce the risk of exposure and prevent the introduction of
 152 unwanted material/matter (contamination) into a sample.

153 3.1.2 *authority having jurisdiction (AHJ)*—the organization, office, or individual
 154 responsible for approving equipment, materials, an installation, or a procedure.

155 3.1.3 *biothreat agent, n*— any microorganism, virus, infectious substance, or biological
 156 product that may be engineered as a result of biotechnology, or any naturally occurring or
 157 bioengineered component of any such microorganism, virus, infectious substance, or biological
 158 product, capable of causing: death, disease or other biological malfunction in a human, an
 159 animal, a plant, or another living organism; deterioration of food, water, equipment, supplies, or
 160 material of any kind; or, deleterious alteration of the environment (18 USC 175).

161 3.1.4 *bulk powder, n*—a visible powder, at least approximately 1 teaspoon or 5 ml in
 162 volume amassed or dispersed over a limited area (optimally, area should be less than 20 cm by
 163 20 cm (approximately 8 in by 8 in).

164 3.1.5 *chain of custody, n*—set of procedures and documents to account for the integrity of a
 165 sample by tracking its handling and storage from point of sample collection to final disposition
 166 of the sample.

167 3.1.6 *cold zone, n*—also known as Clean Zone or Support Zone (CPL 02-02-071 Directive);
 168 the uncontaminated area where workers are unlikely to be exposed to hazardous substances or
 169 dangerous conditions.

170 3.1.7 *confirmatory analysis, n*— analysis that definitively identifies the presence of a
 171 suspected substance or agent. Confirmatory analysis of a biothreat for public health action can
 172 only be performed by a LRN national or reference laboratory.

173 3.1.8 *decontamination*—the reduction or removal of biothreat material from surfaces (for
 174 example, skin) by cleaning and washing.

175 3.1.9 *emergency operations center (EOC)* – The physical location at which the coordination
 176 of information and resources to support domestic incident management activities normally takes
 177 place. An EOC may be a temporary facility or may be located in a more central or permanently
 178 established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be
 179 organized by major functional disciplines (e.g., fire, law enforcement, and medical services), by
 180 jurisdiction (e.g., Federal, State, regional, county, city, tribal), or some combination thereof.

181 3.1.10 *emergency responder*—emergency response providers include federal, state, and
 182 local government, fire department, law enforcement, emergency medical, and related personnel,
 183 agencies, and authorities.

184 3.1.11 *emergency response*—the performance of actions to mitigate the consequences of an
 185 emergency for human health and safety, quality of life, the environment and property. It may
 186 also provide a basis for the resumption of normal social and economic activity.

187 3.1.12 *evacuation*—organized, phased, and supervised withdrawal, dispersal, or removal of
 188 civilians from dangerous or potentially dangerous areas, and their reception and care in safe
 189 areas.

190 3.1.13 *field screening*—field measurements utilized early in the site assessment process to
 191 define and delineate the contaminants present, support tactical decision making and address
 192 operational safety measures. Field screening does not include measurements of biological
 193 properties which is termed on-site biological assessments (see 3.1.19).

194 3.1.14 *hazard, n*— Something that is potentially dangerous or harmful, often the root cause
 195 of an unwanted outcome; a danger or peril.

196 3.1.15 *Hazmat responder, n*— A trained and certified individual who is a member of a
 197 hazardous material response team and qualified to respond to incidents involving toxic industrial
 198 chemical, chemical warfare agents and other weapons of mass destruction. A hazmat response
 199 specialist will have additional training to respond to specific weapons of mass destruction.

200 3.1.16 *hot zone, n*—also known as Exclusion Zone or ExZ (CPL 02-02-071 Directive); the
 201 area, located on the site where contamination is either known or expected and where potential for
 202 greatest exposure exists.

203 3.1.17 *incident commander (IC)*—the individual responsible for all incident activities,
 204 including the development of strategies and tactics and the ordering and release of resources. The
 205 IC has overall authority and responsibility for conducting incident operations and is responsible
 206 for the management of all incident operations at the incident site.

207 3.1.18 *jurisdiction*—a range or sphere of authority. Public agencies have jurisdiction at an
 208 incident within their area of responsibility. Jurisdictional authority at an incident can be political,
 209 geographic (for example, city, county, tribal, State, or Federal boundary lines) or functional (for
 210 example, law enforcement, public health).

211 3.1.19 *multiagency coordination system (MACS)*— A system that provides the architecture
 212 to support coordination for incident prioritization, critical resource allocation, communications
 213 systems integration, and information coordination. MACS assist agencies and organizations
 214 responding to an incident. The elements of a MACS include facilities, equipment, personnel,
 215 procedures, and communications. Two of the most commonly used elements are Emergency
 216 Operations Centers and MAC Groups.

217 3.1.20 *on-site biological assessment, n*—measurements of properties inherent to biological
 218 materials performed in the field using rapid, field based procedures and assays.

219 3.1.21 *personal protective equipment (PPE), n*— Includes personal protective equipment
 220 for eyes, face, head, and extremities, protective clothing, respiratory devices and protective
 221 shields and barriers designed to protect employees from serious workplace injuries or illnesses
 222 resulting from contact with biological, chemical, radiological, physical, electrical, mechanical or
 223 other hazards.

224 3.1.22 *presumptive test, n*—non-definitive test used to screen for the presence of a
 225 substance or agent, or the presence of signatures of a substance or agent.

226 3.1.23 *risk, n*— the probability of suffering a loss or harm or injury: peril.

227 3.1.24 *secondary threats*—any object or person(s) designed to cause harm to persons
 228 responding to an incident (emergency responders) or to increase the number of civilian

229 casualties. Secondary threats are normally designed to cause harm after persons have responded
 230 to the scene.

231 3.1.25 *termination*—termination of the incident in the context of this standard is the end of
 232 life safety operations, investigative work, and assurance of protective measure implementation.
 233 This will include documentation of hazards present and conditions found.

234 3.1.26 *threat, n*— An indication of possible violence, harm, or danger and may include an
 235 indication of intent and capability.

236 3.1.27 *warm zone, n*—also known as the contamination reduction zone or CRZ (CPL 02-
 237 02-071 Directive); the transition area between the Exclusion Zone (ExZ or hot zone) and the
 238 Support Zone (SZ or cold zone) used to reduce and limit the amount of contamination on people
 239 and equipment, and in the air, water, and soil that may be transferred into nonhazardous areas;
 240 the CRZ contains decontamination facilities, and functions as a buffer zone surrounding the ExZ.

241 3.2 *Acronyms:*

242 3.2.1 *AHJ* – Authority Having Jurisdiction

243 3.2.2 *ANSI* – American National Standards Institute

244 3.2.3 *ASTM* – American Society for Testing and Materials

245 3.2.4 *CDC* – Centers for Disease Control and Prevention

246 3.2.5 *CFR* – Code of Federal Regulations

247 3.2.6 *CST* – Civil Support Team

248 3.2.7 *DHS* – Department of Homeland Security

249 3.2.8 *DOT* – Department of Transportation

250 3.2.9 *EOC* – Emergency Operations Center

251 3.2.10 *EPA* – Environmental Protection Agency

252 3.2.11 *FBI* – Federal Bureau of Investigation

253 3.2.12 *FEMA* – Federal Emergency Management Agency

254 3.2.13 *HAZMAT* – Hazardous Materials

255 3.2.14 *IAFC* – International Association of Fire Chiefs

256 3.2.15 *IATA* – International Air Transport Association

257 3.2.16 *IC* – Incident Commander

258 3.2.17 *ICS* – Incident Command System

259 3.2.18 *IEC* – International Electrotechnical Commission

260 3.2.19 *ISEA* – International Safety Equipment Association

261 3.2.20 *ISO* – International Organization for Standardization

262 3.2.21 *MACS* – Multiagency Coordination System

263 3.2.22 *NFPA* – National Fire Protection Association

264 3.2.23 *NIMS* – National Incident Management System

265 3.2.24 *NIOSH* – National Institute for Occupational Safety and Health

266 3.2.25 *NRC* – Nuclear Regulatory Commission

- 267 3.2.26 *OSHA* – Occupational Safety and Health Administration
- 268 3.2.27 *PPE* – Personal Protective Equipment
- 269 3.2.28 *WMD* – Weapons of Mass Destruction

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272 **4. Summary of Practice**

273 4.1 This guide is based on community knowledge and experience related to emergency
274 response to biothreats. The experience base at the Federal, State, tribal and local levels is
275 translated into a standard guide to assist responder agencies toward the goal of building
276 operational guidelines for the sample collection and response to a potential biothreat agent. The
277 guide is intended to enhance the ability, knowledge, and communication between emergency
278 response team representatives, including fire department, HAZMAT, local law enforcement,
279 Federal Bureau of Investigation and public health personnel that are responsible for responding
280 to a biothreat incident.

281 4.2 This is guidance to accompany and support the ASTM E2458 standard practices for
282 Bulk Sample Collection and Swab Sample Collection of Visible Powders Suspected of Being
283 Biothreat Agents from Nonporous Surfaces. Utilization of a standard sample collection method
284 and standard guidance insures reduced exposure risk, minimizes on-site sample consumption for
285 preservation of public health samples and forensic samples, reduces variability associated with
286 sample handling and analysis and increases reliability of sampling suspect biothreat materials.

287 4.3 This guide addresses collecting samples for public safety purposes.

288 4.4 This guide addresses the fundamentals needed to support sampling and screening
289 capability development by emergency responders within a jurisdiction or practice area to assure
290 proper involvement and communication among responding organizations.

291 4.5 This document provides guidance for the responders to an incident involving a potential
292 biological threat. Emergency responders (e.g. HAZMAT response teams) work with local and
293 federal law enforcement and public health officials to determine if a credible biothreat incident
294 exists. The determination of a credible biological threat is made through consultation with the
295 FBI. Responders should involve, inform, consult, and defer to the FBI in all cases where a
296 credible biological threat is encountered.

297 4.6 This guidance includes minimum training requirements, including requirements for
298 individuals trained to work with hazardous materials in the hot zone (Ref: NFPA 471, NFPA
299 472, or OSHA 1910.120), requirements for training to perform initial explosive substance,
300 chemical and radiological screening and for persons conducting the field screening and sample
301 collection in response to potential biothreats.

302 4.7 This guide provides references for determining the appropriate level of personal
303 protective equipment (PPE) to mitigate hazards during sample collection and screening in an
304 incident with a potential biothreat agent.

305

306 **5. Significance and Use**

307 5.1 It is essential for emergency response agency personnel to plan, develop, coordinate,
308 implement and train on standardized guidelines that encompass policy, strategy, operations and
309 tactical decisions prior to responding to a biothreat event. This guide facilitates the necessary
310 building blocks for effective response planning and program development.

311

312 **6. Planning for Response to Incidents Involving Biothreats**

313 6.1 It is essential for emergency response agency personnel to plan, develop, coordinate,
314 implement, and train on standardized guidelines that encompass policy, strategy, operations, and
315 tactical decisions prior to responding to a biothreat incident.

316 6.2 Participants in this planning process should include, for each jurisdiction assuming
317 responsibility:

318 6.2.1 Reference laboratory(s) within the LRN.

319 6.2.2 Public health, including:

320 6.2.2.1 Public health officers and their designated Bioterrorism Coordinators, if applicable

321 6.2.2.2 Environmental health.

322 6.2.2.3 Occupational safety and health.

323 6.2.2.4 Epidemiology.

324 6.2.2.5 Communicable disease.

325 6.2.3 Executive policy makers for the jurisdiction.

326 6.2.4 Law enforcement.

327 6.2.4.1 Local.

328 6.2.4.2 County.

329 6.2.4.3 State.

330 6.2.4.4 Tribal

331 6.2.4.5 Federal.

332 (1) Federal Bureau of Investigation.

333 (2) U.S. Postal Inspection Services.

334 6.2.5 Fire department.

335 6.2.6 Special resources, including:

336 6.2.6.1 Hazardous materials (HAZMAT) response teams.

337 6.2.6.2 Bomb squads.

338 6.2.6.3 National Guard Weapons of Mass Destruction (WMD) Civil Support Teams (CSTs).

339 6.2.6.4 Occupational safety and health.

340 6.2.7 Special target/high risk facilities or institutions.

341 6.3 Planning participants should meet to develop agreements pertaining to all aspects of the
342 response; specifically for this guide, planning shall focus on coordination for initial response
343 including but not limited to:

344 6.3.1 Roles and responsibilities.

345 6.3.2 PPE and appropriate protective measures.

346 6.3.3 Notification and communications including risk communication.

347 6.3.4 Decision making process for sample collection and submission to the LRN reference
348 laboratory.

349 6.3.4.1 For resource management purposes and to avoid the unnecessary testing of samples
350 that potentially pose no public health threat, the LRN reference laboratory, in coordination with
351 the jurisdiction and the FBI, should develop a list of acceptance criteria for sample submission
352 which can be modified as needed. .

353 6.3.4.2 The jurisdiction may choose to place a priority (e.g. FBI credible threat assessment is
354 required) or classification on an incident to determine if a sample is collected. A jurisdiction
355 may require a sample receive a classification or priority level to gain acceptance of the sample by
356 the receiving LRN reference laboratory. The receiving LRN laboratory may choose to utilize a
357 classification level in order to prioritize sample analysis for specific samples in the case that
358 several samples are submitted at the same time.

359 6.3.5 Training.
 360 6.3.6 Sample collection methods and materials including sampling kits.
 361 6.3.7 Screening/detection technologies and analysis. Field screening methods may have
 362 limits of detection inadequate for material identification depending on the material measured.
 363 (Note: This standard supports and should reflect support for the development and use of
 364 detection technologies validated to appropriate performance specification consensus standards
 365 when available).

366 6.3.8 Packaging.

367 6.3.9 Transportation.

368 6.3.10 Documentation, including:

369 6.3.10.1 Standardized or uniform sample submission and chain-of-custody forms.

370 6.3.10.2 Contact information for responder, public health and law enforcement on-scene
 371 and on-call coordination representatives.

372

373 **7. Training Program Development**

374 7.1 Responders tasked with the initial response to a biothreat incident including sample
 375 collection and field screening must be trained according to recognized training standards.

376 7.2 A training program shall be developed through coordination between the initial
 377 responder organization, which may be the hazardous materials response unit, LRN reference
 378 laboratory, local law enforcement, the FBI, and other agencies as defined by planning
 379 participants.

380 7.3 A training program shall include a curriculum similar to the training required to receive
 381 certification as a Hazardous Materials Technician, meeting the standards of the National Fire
 382 Protection Association standard, NFPA 472, on responder competencies.

383 7.4 An alternative training level suitable for certain jurisdictions may include training
 384 personnel at the level of Operations Level Responder under NFPA 472 with additional mission
 385 specific competencies. This lesser level of training may be more attainable and sustainable for
 386 some jurisdictions and agencies where the responder does not have other HAZMAT
 387 responsibilities that require technician level training. Specific program components and
 388 necessary competencies shall be determined with reference to the following specific sections of
 389 NFPA 472:

390 7.4.1 Chapter 5 Core Competencies for Operational Level Responders.

391 7.4.2 Chapter 6 Competencies for Operations Level Responders Assigned Mission-Specific
 392 Responsibilities.

393 7.4.2.1 Section 6.1 General.

394 7.4.2.2 Section 6.2 Mission Specific Competencies: Personal Protective Equipment.

395 7.4.2.3 Section 6.4 Mission Specific Competencies: Technical Decontamination.

396 7.4.2.4 Section 6.7 Mission Specific Competencies: Air Monitoring and Sampling.

397 7.4.2.5 Annex B Competencies for Responders Assigned Biological Agent-Specific Tasks.

398 7.5 Additional training courses, professional conferences and emerging standards may
 399 include:

400 7.5.1 DHS Office of Domestic Preparedness Course – “Public Safety Response – Sampling
 401 Techniques and Guidelines” (PER – 222).

402 7.5.2 DHS Office of Domestic Preparedness Course - “Advanced Chemical and Biological
 403 Integrated Response – Technician Level” (PER – 226).

404 7.5.3 Implementation of ASTM Standard E2458-06.

- 405 7.5.4 National conferences on environmental sampling and detection for bioterror agents.
406 7.6 Training program components shall include but may not be limited to:
407 7.6.1 Understanding biological agents.
408 7.6.2 Defining the bioterror emergency response team.
409 7.6.3 Proper coordination with bioterror emergency response team members.
410 7.6.4 Role of field screening.
411 7.6.5 Threat evaluation procedures.
412 7.6.6 Screening technology purpose and operation.
413 7.6.7 Risk communication.
414 7.6.8 Methods for isolation and containment.
415 7.6.9 Personal protection equipment.
416 7.6.10 Aseptic technique.
417 7.6.11 Proper sample collection methods.
418 7.6.12 Sample packaging and transportation procedures.
419 7.6.13 Documentation.
420 7.6.14 Incident termination procedures.
421

422 8. Responder Competency Assessment

423 8.1 A competency assessment is recommended to assess proficiency of emergency response
424 personnel across the range of knowledge, skills and abilities identified in the training program as
425 related to performing duties associated with bioterror response.

426 8.2 Successful completion of a training program demonstrates responders' role to protect the
427 LRN reference laboratory from unknowingly receiving hazardous samples, which could injure
428 laboratory personnel or cause damage to this critical facility.

429 8.3 Competencies evaluated include:

430 8.3.1 A coordinated risk assessment.

431 8.3.2 Proper sample collection including proper use of standard methods and selection of
432 materials.

433 8.3.3 Proper field screening based on threat evaluation/sample quantity.

434 8.3.4 Field screening capabilities.

435 8.3.4.1 Bomb/explosives screening for elimination.

436 8.3.4.2 Flammability screening (typically a combustible gas indicator (CGI)).

437 8.3.4.3 Radiological screening (typically alpha, beta, gamma survey meters and neutron
438 detectors).

439 8.3.4.4 Corrosive screening (typically with pH paper, and oxidizer with starch-iodide paper
440 or equivalent).

441 8.3.4.5 Additional chemical screening may be utilized (e.g., FTIR, wet chemistry, Raman).

442 8.3.5 Completion of sample submission documentation, including:

443 8.3.5.1 Field screening report.

444 8.3.5.2 Sample submission form.

445 8.3.5.3 Chain of custody form.

446 8.4 A competency assessment program should include:

447 8.4.1 Hands on competency assessment (proficiency panels) performed annually.

448 Proficiency panels should be designed in coordination with the receiving LRN reference
449 laboratory. ISO/IEC Guide 43 on proficiency testing program development can serve as a guide
450 for developing proficiency testing programs for field response programs.

451 8.4.2 Field exercises or drills.

452 8.4.3 Competency evaluation shall be performed in coordination with the receiving LRN
453 reference laboratory and the FBI.

454 8.4.4 Competency evaluated on an annual basis.

455

456 **9. Initial Response Best Practices**

457 9.1 The context of an initial response to a suspected biological hazard involves local
458 hazardous materials response teams, fire departments, law enforcement, the FBI Field Office
459 Weapons of Mass Destruction Coordinator, and other federal agencies, and the receiving LRN
460 reference laboratory. The vast majority of calls for responses are received in public safety
461 dispatch centers on the 911 lines. When the incident occurs, local fire and/or police officers are
462 sent to the scene of the reported hazard. As stated in the coordinated FBI-DHS-HHS/CDC
463 guidelines for responders to suspicious letters and packages, the role of Incident Commander
464 (IC) will be assumed by the appropriate authority, as designated by state or local responders. In
465 many cases, the incident will be managed by a Unified Command. Unified Command is an
466 Incident Command System application used when more than one agency has incident jurisdiction
467 or when incidents cross political jurisdictions. Agencies work together through the designated
468 members of the UC, often the senior persons from agencies and/or disciplines participating in the
469 UC, to establish a common set of objectives and strategies and a single Incident Action Plan.

470 9.2 The scope of this section is to provide guidance on establishing a standardized protocol
471 for hazardous materials response teams, and other properly trained emergency responders, to
472 conduct an initial scene assessment and initial response to a suspected biothreat incident.

473 9.3 In situations where biothreat agents are suspected, a secondary objective is to provide
474 the information gained during the initial response, sample collection and field screening to assist
475 local authorities making short-term tactical decisions pending the confirmatory analysis at the
476 LRN reference laboratory.

477 9.4 Response document development should specify a limited mission for the emergency
478 responders. It is intended to guide the development of a response protocol for:

479 9.4.1 The performance of actions to mitigate the consequences of an emergency for human
480 health and safety, quality of life, the environment and property.

481 9.4.2 Initial response where there is no intelligence available at the time of dispatch to
482 suggest that the incident will require more than a limited response of specialized resources.

483 9.4.3 Emergency response teams with the purpose of examining specific items or visible
484 substances that caused the public to call a public safety access/dispatch center.

485 9.5 It is beyond the scope of the guidance provided here to address development of a
486 protocol where evidence collection or large area sampling missions are required.

487 9.6 Additional upgraded response protocols should be designed to address situations where
488 there are credibility factors present such as:

489 9.6.1 Reports of victims.

490 9.6.2 Dissemination devices.

491 9.6.3 Confirmed presence of biothreat agents (e.g. public health reports).

492 9.7 An initial response protocol should include guidance for the emergency response team to
493 properly conduct:

494 9.7.1 A risk assessment, including but not necessarily performed in this order:

495 9.7.1.1 Hazard assessment.

496 9.7.1.2 Threat evaluation.

- 497 9.7.2 Field screening operations.
- 498 9.7.3 Sample collection and packaging.
- 499 9.7.4 Tactical actions and decision making aids.

500

501 **10. Risk Assessment**

502 10.1 Once on-scene, emergency responders should begin a risk assessment, which includes
503 both a hazard and threat assessment, and immediately notify local law enforcement, the FBI and
504 the receiving LRN reference laboratory when the assessment indicates the potential for a
505 biological threat exists.

506 10.2 A risk assessment provides an indication of the probability of suffering harm or loss.
507 Risks cannot be eliminated but can be managed. Factors that influence the level of risk include
508 the nature of the hazardous material, level of the threat, quantity of the material, if encountered
509 in a container, the containment system and type of stress applied to that system, proximity of
510 exposures, and level of available resources.

511 10.3 Risk assessment is an ongoing activity. Risk assessment activities should include
512 initiating coordination with law enforcement so that law enforcement can begin conducting a
513 threat assessment to evaluate if a credible threat exists. Changes in the environment and
514 intelligence information may result in a reevaluation of priorities and the risk assessment should
515 be reevaluated appropriately.

516 10.4 In the event of multiple hazards, the results of a risk assessment can be used to
517 establish priorities so that the most dangerous situations are addressed first and those least likely
518 to cause major problems can be considered later. The outcome of a risk assessment can be used
519 to target resources. Within states and/or local jurisdictions, there may be additional resources
520 available designed to provide guidance and equipment support for the mission.

521 10.5 NFPA 1600 2007 provides guidance on performing a risk assessment; Annex A.5.3 of
522 NFPA 1600 2007 provides steps for a comprehensive risk assessment. Additional guidance
523 documents developed by state, county, and local public health should be referenced as available.

524 10.6 Steps in a risk assessment include:

525 10.6.1 Identify potential hazards, threats or perils to the responding organization, the
526 infrastructure and the surrounding area.

527 10.6.1.1 Field screening can assist in determining the nature of the hazard and aid in the
528 threat categorization and assessment.

529 10.6.2 Determine the potential impact of each hazard, threat or peril.

530 10.6.2.1 Determine whether the probability is high, medium or low that the source will
531 actually cause damage.

532 10.6.2.2 Estimate the severity, relative frequency and vulnerability to the hazard, threat or
533 peril.

534 10.6.2.3 Determine whether the seriousness to life, property and the environment of such a
535 hazard would be high, medium or low.

536 10.6.3 Determine the relative level of risk associated with the incident.

537 10.6.4 A risk assessment may also include both a “what-if” analysis to identify specific
538 hazards and hazardous situations and a checklist of known hazards. What-if questions should
539 include an evaluation of what could go wrong and what if hazardous consequences are identified.

540

541 **11. Hazard Assessment**

542 11.1 The physical and chemical properties of a material can provide insight into the nature
543 of the hazard. Some of these properties can be determined through field measurements known as
544 field screening.

545 11.2 All field screening and on-site biological assessment capabilities should be
546 communicated well before an event to the receiving LRN reference laboratory and local and
547 federal law enforcement including the FBI Field Office Weapons of Mass Destruction
548 Coordinator or other representative agencies that contributed to response planning activities.

549 11.3 In the case of response to a possible biothreat, field measurements of the physical and
550 chemical properties of the contaminant aid in the risk assessment and help to protect the
551 responders, the public and the receiving LRN reference laboratory.

552 11.4 If there is indication a low or high risk exists, personnel (e.g. HAZMAT response
553 teams, law enforcement, FBI) conducting the risk assessment may determine field screening is
554 warranted. Field screening consists of evaluating for the presence of explosives, radiological
555 materials, corrosive materials and volatile organic compounds by the HAZMAT response team
556 as is defined in the coordinated FBI-DHS-HHS/CDC guidelines for responders to suspicious
557 letters and packages.

558 11.5 Methods of analysis that minimize sample consumption should be used when
559 performing field screening on suspicious substances, conserving as much of the sample as
560 possible for laboratory confirmation and law enforcement evidence collection. Field screening is
561 different than the initial visual and physical assessment of a package for indications of explosive
562 materials and acute chemical hazards.

563 11.6 There are currently no definitive field tests for identifying biothreat agents;
564 identification is an operation that can only be performed by the LRN reference laboratory. The
565 LRN reference laboratory is the only agency that can perform the necessary presumptive and
566 confirmatory testing necessary to make public health decisions.

567 11.7 While there are currently no recommended validated methods for rapid field
568 identification of biothreat agents, jurisdictions choosing to conduct on-site biological
569 assessments should ensure that the results are documented, indicating which tests have been
570 performed and the test results.

571 11.8 Any on-site biological assessments should be performed in accordance with ASTM
572 E2458-XX method B, which provides a method for use of the residual powder when the primary
573 source and bulk powder sample have been collected and packaged for transport to the laboratory.
574 Results of any on-site biological assessments performed on the residual sample should be
575 immediately made available to the receiving LRN reference laboratory and to responding local
576 and federal law enforcement.

577 11.9 All field measurements results should be documented and included in the sample
578 package or sent directly to the receiving LRN reference laboratory by fax transmission.
579 Alternatively, field screening and on-site biological assessment results can be communicated by
580 telephone to the LRN reference laboratory staff and appropriate documentation submitted later.

581 11.10 Field screening and on-site biological assessment should be conducted downrange
582 with basic detection and monitoring equipment and reducing the risk of spreading contamination
583 outside of the hot zone.

584 11.11 Samples collected for purposes of field measurements should not be opened beyond
585 the decontamination line.

586 11.12 Additional provisions for a field screening location should include providing a secure
587 location with the following requirements:

- 588 11.12.1 Protected from wind and weather.
- 589 11.12.2 Adequate lighting.
- 590 11.12.3 Adequate bench space for equipment.
- 591 11.12.4 Containment from sample release.
- 592 11.12.5 Negative pressure with HEPA and activated charcoal (or appropriate NIOSH-
- 593 certified CBRN) filtration.
- 594 11.12.6 Decontamination and temporary storage of hazardous waste.
- 595 11.13 An alternative would be utilization of a deployable shelter or purpose built vehicle,
- 596 trailer with negative pressure HEPA and activated charcoal (or appropriate NIOSH-certified
- 597 CBRN) filtered glove box meeting the above requirements. All Hazards Receipt Facility
- 598 Screening Protocol provides requirements for a field screening facility capability.

599

600 **12. Threat Evaluation**

601 12.1 A critical aspect of assessing the risk of a given situation includes an evaluation of the
602 threat. A threat evaluation provides an indication of possible violence, harm, or danger and may
603 include an indication of intent and capability. A threat evaluation may be initially performed by
604 state, local authorities.

605 12.2 A threat is determined to be credible by evaluating all available information on scene
606 including law enforcement interviews, intelligence information, hazard assessment results, and
607 communication with public health and the receiving LRN reference laboratory.

608 12.3 If the result of the threat evaluation concludes that there may be reasonable belief that
609 a bio-terrorism crime has occurred, an FBI led credibility threat assessment must be conducted
610 on-scene.

611 12.4 An FBI credibility threat assessment is coordinated by the local FBI Field Office
612 Weapons of Mass Destruction Coordinator via a conference call with FBI Headquarter elements
613 (Weapons of Mass Destruction Directorate and the Laboratory Division) and on-scene personnel

614 12.5 Once determined as credible, a course of action should be initiated to collect the
615 evidence and bring it safely to the nearest LRN reference laboratory and in certain circumstances
616 partner laboratories as specified by the FBI. All credible samples are immediately sent to the
617 LRN reference laboratory for confirmatory testing.

618 12.6 A threat evaluation performed on-scene may be used to support an FBI led credibility
619 threat assessment. To assist in performing a threat evaluation the following guidance is
620 provided:

621 12.6.1 Reference the Homeland Security Threat Advisory System, which is in use at the
622 federal, region, tribe, territory and state level. The Homeland Security threat advisories combine
623 threat information with vulnerability assessments and provide communications to the public
624 safety officers.

625 12.6.2 Develop a list of credible threat factors agreed upon by the responders, LRN
626 reference laboratory, state and local law enforcement agencies and the FBI Field Office Weapons
627 of Mass Destruction Coordinator.

628 12.6.3 The following are suggested indicators to increase suspicion and add to the
629 credibility of the threat:

- 630 12.6.3.1 An articulated threat, written or verbal.
- 631 12.6.3.2 Dissemination device or mechanism of dispersal.
- 632 12.6.3.3 Profile of the recipient and/or target.
- 633 12.6.3.4 Political affiliations.

634 12.6.3.5 Social indicators which may include schools, churches, health care providers.

635 12.6.3.6 Public media.

636 12.6.3.7 Known item or watch list.

637 12.6.3.8 Event indicated by public safety/health channels.

638 (1) Confirmation of bioterror agent

639 (2) Reports of human illness

640 12.6.4 Responders may take into consideration guidance from the FBI, CDC and US Postal
641 Service in the FBI-DHS-HHS/CDC Coordinated Document as well as the guidance from IAFC
642 to identify indicators of a bioterror incident. This guidance describes the characteristics of a
643 “suspicious” package as follows (note that these are not recommendations that apply specifically
644 to the assessment of potential biological threats):

645 12.6.4.1 Excessive postage.

646 12.6.4.2 Handwritten or poorly typed address.

647 12.6.4.3 Incorrect titles.

648 12.6.4.4 Title, but no name.

649 12.6.4.5 Misspelling of common words.

650 12.6.4.6 Oily stains, discoloration or odor.

651 12.6.4.7 No return address.

652 12.6.4.8 Excessive weight.

653 12.6.4.9 Lopsided or uneven.

654 12.6.4.10 Protruding wires or aluminum foil.

655 12.6.4.11 Excessive security material such as masking tape, string, etc.

656 12.6.4.12 Visual distractions.

657 12.6.4.13 Unusual sounds.

658 12.6.4.14 Sealing of seams with tape.

659 12.6.4.15 Physical touch of the package suggests that a powder might be present.

660 12.6.4.16 Powder spilling from package.

661 12.6.5 Along with these factors it is recognized that emergency response personnel have a
662 great deal of response experience and should use their judgment and experience to determine if
663 there are additional factors at the scene that would cause them to upgrade the threat.

664 12.6.6 It should be noted that hoaxes (i.e. letters that contain a threat about a dangerous
665 substance with or without visible substance present) will be considered credible because these
666 cases may be prosecuted under the Hoax statutes (18 USC Section 1038), even if later the
667 substance is determined as posing no hazard.

668

669 **13. Tactical Actions and Decision Making Aids**

670 13.1 Recommendations should be developed during the planning efforts to address
671 incidents involving bioterror threats that will assist emergency responders in determining an
672 appropriate level of action based on the risk assessment and the credibility threat assessment.
673 These recommendations should be developed with the LRN reference laboratory and the FBI
674 Field Office Weapons of Mass Destruction Coordinator and other representative agencies that
675 contributed to response planning activities.

676 13.2 An example system to accommodate such recommendations may include three
677 categories: *No Apparent Risk*, *Low Risk* and *High Risk*. Indicators and actions for each risk
678 category are described below.

679 13.2.1 *No apparent Risk* Indicators:

680 13.2.1.1 The presence of powder, particulate matter or liquid material not associated with a
681 threat and an obvious explanation for the item at the given location is determined.

682 13.2.2 *No apparent Risk* Actions:

683 13.2.2.1 Responders (e.g. HAZMAT) should communicate with the LRN reference
684 laboratory and local and federal law enforcement including the FBI Field Office Weapons of
685 Mass Destruction Coordinator or other representative agencies upon arrival at the scene that
686 there is no apparent risk.

687 13.2.2.2 The decision is made to clear the scene.

688 13.2.3 *Low Risk* Indicators:

689 13.2.3.1 The presence of powder, particulate matter or liquid material not associated with a
690 threat but no obvious explanation for the item at the given location.

691 13.2.3.2 Example: An envelope that contains an unexplained substance, but not
692 accompanied by a threat.

693 13.2.4 *Low Risk* Actions:

694 13.2.4.1 Responders (e.g. HAZMAT) should communicate with the LRN reference
695 laboratory and local and federal law enforcement including the FBI Field Office Weapons of
696 Mass Destruction Coordinator or other representative agencies upon arrival at the scene.

697 13.2.4.2 Through coordination with the FBI, law enforcement will initiate a threat
698 credibility assessment for all potential biothreats (low or high risk designation)

699 13.2.4.3 The LRN reference laboratory is provided with the contact information for the on-
700 scene responders (e.g. HAZMAT) and the submitting party.

701 13.2.4.4 The decision to collect and submit a sample to the LRN reference laboratory for
702 testing is made at the local level through communication between on-scene responders, including
703 the FBI and the receiving LRN reference laboratory.

704 13.2.5 *High Risk* Indicators (including credible threats):

705 13.2.5.1 A sample associated with a verbal or written threat.

706 13.2.5.2 A sample associated with specific intelligence.

707 13.2.5.3 Public official, government building.

708 13.2.5.4 Casualties, mass decontamination, or evacuations.

709 13.2.5.5 Any unusual event that is determined by public safety and/or public health officials
710 to be of high risk.

711 13.2.5.6 Human illness associated with the situation.

712 13.2.6 *High Risk* Actions:

713 13.2.6.1 Responders (e.g. HAZMAT) immediately contact the FBI to initiate a credibility
714 threat assessment.

715 13.2.6.2 Responders (e.g. HAZMAT) immediately call the LRN reference laboratory,
716 which will coordinate testing with the responding unit and the submitting party.

717 13.2.6.3 LRN reference laboratory is provided with contact information for on-scene
718 personnel including the following:

719 (1) Emergency Responders.

720 (2) Submitting party.

721 (3) Site operator or property/facility owner.

722 13.2.6.4 Emergency response team conducts a risk assessment and determines if the threat
723 should be treated as a potential credible threat.

724 13.2.6.5 Emergency responders perform field screening for radiation, explosives, and
725 corrosives for all samples according to federal recommendations in the joint FBI-DHS-
726 HHS/CDC Coordinated Document guidelines for responders to suspicious letters and packages.

727 13.2.6.6 Emergency responders collect and package the samples for transport to the LRN
728 reference laboratory as described in Method A of ASTM E2458-XX.

729 13.3 As a result of the initial risk assessment, it may be determined that there is sufficient
730 indication of a credible threat to take immediate tactical actions to contain the threat and mitigate
731 the potential effects until the LRN reference laboratory receives the sample and can perform
732 rapid presumptive and then confirmatory analysis. Such tactical actions include:

733 13.3.1 Holding or retaining of emergency services on-scene, which may include HAZMAT
734 and law enforcement personnel.

735 13.3.2 Expedition of sample delivery to the receiving LRN reference laboratory.

736 13.3.3 Notification to the LRN reference laboratory of the need for immediate initiation of
737 confirmatory testing procedures.

738 13.3.4 Briefing senior public safety officials.

739 13.4 If there are sufficient hazard or threat credibility indicators, public safety officials with
740 statutory public safety authority can isolate property and conduct other short-term tactical
741 operations pending confirmatory analysis by the LRN reference laboratory.

742 13.5 Typically, the short-term action that is taken under local public safety authority is to
743 restrict access to the affected area. This decision is made based on the risk assessment.

744 13.6 Decontamination of potentially exposed people has rarely been recommended.

745 13.7 Public health authorities will make any decision regarding the need for public health
746 protective actions based on their analysis and threat assessment.

747 748 749 **14. Sample Collection and Submission**

750 14.1 If through the risk assessment, a threat evaluation and communication with the
751 response agencies, including the LRN reference laboratory, it is determined that a sample should
752 be collected, the bulk of the powder should be collected from the surface as described in method
753 A of ASTM E2458-XX (Standard Practices for Bulk Sample Collection of Visible Powders
754 Suspected of Being Biothreat Agents from Nonporous Surfaces by Responders) and immediately
755 be transported to the LRN reference laboratory.

756 14.2 All credible threats are considered high risk and a sample should immediately be
757 collected and sent to the LRN reference laboratory for confirmatory testing. However, for low
758 risk scenarios where there is no obvious explanation for the presence of a suspicious substance,
759 the decision to collect and transport a sample to the LRN reference laboratory to conduct testing
760 for public safety purposes may be made at the local level through communication between on-
761 scene emergency responders and the receiving LRN reference laboratory. A priority or
762 classification may be required to gain acceptance of the sample by the receiving LRN reference
763 laboratory if a jurisdiction chooses to place a priority or classification on an incident and
764 collected sample.

765 14.3 Sampling material kits and a recommended set of supplies should be developed
766 through planning efforts with the receiving LRN reference laboratory, according to ASTM
767 E2458-XX or as provided by the state public health lab in accordance with the LRN reference
768 laboratory.

- 769 14.4 Standardized documentation developed by the hazardous materials response teams,
770 receiving LRN reference laboratories and the FBI should be completed by the responder upon
771 submission of samples to the receiving laboratory. Documentation should include:
- 772 14.4.1 Sample submission forms, including:
- 773 14.4.1.1 Collector/submitter incident identifier.
- 774 14.4.1.2 Identification and contact information for scene coordination team (HAZMAT,
775 public health and FBI representatives that coordinated sample collection).
- 776 14.4.1.3 Indication whether incident report is attached (yes/no).
- 777 14.4.1.4 Evidence (yes/no).
- 778 14.4.1.5 Sample description.
- 779 (1) For swab or wipe samples of residual powder, include:
- 780 (a) Sampling materials.
- 781 (b) Surface area sampled.
- 782 (c) Solution used to wet swab or wipe.
- 783 14.4.1.6 Date and time sample collected.
- 784 14.4.1.7 Collector information (name, organization, address, phone #).
- 785 14.4.1.8 Location where sample collected (location name, address, phone #, fax #, contact
786 name).
- 787 14.4.1.9 Submitter information, if different from collector.
- 788 14.4.1.10 Person delivering sample to LRN reference laboratory (name, title, organization,
789 badge #).
- 790 14.4.1.11 Specimen screened (yes/no); if yes, screening information:
- 791 (1) Device used (model, SN, calibration date).
- 792 (2) Radiation – Screening method(s), background reading, sample reading.
- 793 (3) Explosives – Screening method(s), results.
- 794 (4) Chemical – Screening method(s), results.
- 795 (5) Biological – Assessment method(s), results
- 796 (6) pH – results.
- 797 (7) Other – Screening method(s), results.
- 798 (8) Location sample was screened if different from the response location.
- 799 (9) Person conducting screening (name, address, organization, phone #).
- 800 14.4.2 Chain of custody form.
- 801 14.4.2.1 Should streamline with LRN chain of custody forms and should include:
- 802 (1) Case identifier number or identification information.
- 803 (2) Identification and contact information for scene coordination team (HAZMAT, public
804 health and FBI representatives that coordinated sample collection).
- 805 (3) Identification and contact information for individual(s) who should receive laboratory
806 testing results.
- 807 (4) Collector information (name, signature, organization, date, time).
- 808 (5) Transfer and/or receipt information.
- 809 (a) Relinquished by (name, signature, organization).
- 810 (b) Received by (name, signature, organization).
- 811 (c) Date and time.
- 812 (d) Reason (transport, storage, test, other).
- 813
- 814

- 815 **15. Keywords**
- 816 Biothreat
- 817 Planning
- 818 Response
- 819 Guidance
- 820 Communication
- 821 Sampling
- 822 Field screening
- 823 Training

824

825 **APPENDICES**

826 **(Nonmandatory Information)**

827

828 These appendices provide example forms for the user. Use of these specific forms is not mandatory.

829

830 **X. Example and *Best Practices* Forms**

831

THIS IS A DRAFT DOCUMENT
FOR REVIEW AND COMMENT ONLY
DO NOT DISTRIBUTE

835 X-1.2 EXAMPLE SPECIMEN SCREENING FORM

MDPH William A. Hinton State Laboratory Institute Biological/Chemical Specimen Submission Form / Environmental Threat		<i>Do not write in this box; SLI use only</i> SLI TRACKING NUMBER (One SLI Tracking # Per Package)	
SPECIMEN SCREENING INFORMATION			
SPECIMEN WAS SCREENED FOR: (check any applicable boxes and write additional information if the box is checked)			
<input type="checkbox"/> RADIATION	Screening Method(s): _____ Background Reading: _____ Sample Reading (units): _____		
<input type="checkbox"/> EXPLOSIVES	Screening Method(s): _____ Results: _____		
<input type="checkbox"/> CHEMICALS	<input type="checkbox"/> WMDs Screening Method(s): _____ Results: _____ <input type="checkbox"/> pH Results: _____ <input type="checkbox"/> OTHER Screening Method(s): _____ Results: _____		
<input type="checkbox"/> OTHER	Screening Method(s): _____ Results: _____		
SAMPLE SCREENED BY: <small>(Fill out this section completely)</small>	Technician Name(s): _____ _____ _____	Organization(s): _____ _____ _____	
COLLECTOR/SUBMITTER INCIDENT IDENTIFIER #	Address: _____ _____ _____	Telephone(s): _____ _____ _____	
The Hinton State Laboratory Institute does not accept explosive or incendiary material or chemical WMD. Call the 24/7 Laboratory Emergency Cell phone at 617-590-6390 for guidance.			
<small>Questions regarding the submission and analysis of explosive or incendiary material should be referred to the Arson & Explosives Unit at the State Crime Lab 8 am – 5 pm Telephone ~ 508-358-3220 / After Hours Pager ~ 508-899-3770 / After Hours Cell ~ 508-241-2052</small>			

836
837
838
839

THIS IS FOR REVIEW & DO NOT DIS

840 X2. EXAMPLE OF SAMPLE COLLECTION SHEET

Sample Number or Sample Identifier: _____

Date/Time of Sample: _____

Type of Sample: _____

Description of Material Sampled (e.g., color, texture, homogeneity etc.):

Name of Persons Collection Sample:

Sampler

Printed Name: _____

Signature: _____

Phone Number: _____

Facilitator

Printed Name: _____

Signature: _____

Phone Number: _____

Measured Size of Area Sampled: _____

Sample Location (include agency, address, room number, description of sample location):

Map of Sample Area:

Other Comments:

842
843
844
845

X3. EXAMPLE OF CHAIN OF CUSTODY FORM

1. NAME OF SAMPLE COLLECTOR		2. LOCATION OF SAMPLE COLLECTION ADDRESS (CITY, ST, ZIP)			
3. REASON OBTAINED		4. TIME/DATE OBTAINED			
5. ITEM #	6. QUANTITY	7. DESCRIPTION OF SAMPLE (Liquid, Solid, Color, etc)			
8. ITEM #	9. QUANTITY	10. DESCRIPTION OF SAMPLE PACKAGING			
12. ITEM #	13. DATE	14. RELEASED BY	15. RECEIVED BY	16. PURPOSE OF CHANGE OF CUSTODY	17. SHIPMENT DESCRIPTION
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		

846

847 **X3.1 EXAMPLE OF CHAIN OF CUSTODY FORM**

848

849

14. ITEM #	15. DATE	16. RELEASED BY	17. RECEIVED BY	18. PURPOSE OF CHANGE OF CUSTODY	19. SHIPMENT DESCRIPTION
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		
		Signature	Signature		
		Print: Name, Grade, Title	Print: Name, Grade, Title		
20. BACKGROUND INFORMATION					
a. Wind Speed	b. Wind Direction (from)	c. Temperature	d. Humidity	e. Visibility	f. Terrain
					g. Other Remarks
21. FINAL DISPOSAL ACTION					
RELEASE TO OWNER OR OTHER (Name/Unit)					

DESTROY					

OTHER (Specify)					

22. FINAL DISPOSAL AUTHORITY					
ITEM(S) _____ ON THIS DOCUMENT, PERTAINING TO THE INVESTIGATION INVOLVING					
_____ (Grade)					
_____ (Name) _____ (Organization) (IS) (ARE) NO LONGER					
REQUIRED AS EVIDENCE AND MAY BE DISPOSED OF AS INDICATED ABOVE. (If article(s) must be retained, do not sign, but explain in separate correspondence.)					
_____ (Typed/Printed Name, Grade, Title) _____ (Signature) _____ (Date)					
23. WITNESS TO DESTRUCTION OF EVIDENCE					
THE ARTICLE(S) LISTED AT ITEM NUMBER(S) _____ (WAS) (WERE) DESTROYED BY THE EVIDENCE CUSTODIAN, IN MY PRESENCE, ON THE DATE INDICATED ABOVE.					
_____ (Typed/Printed Name, Organization) _____ (Signature)					

850

851

FIG. X3.1 Chain of Custody Form (continued)

852 X-4.1 EXAMPLE BIOTHREAT TRACKING FORM

853

854

New York State Department of Health
 Wadsworth Center
 Biodefense Laboratory
 120 New Scotland Avenue
 Albany, NY 12208 Phone (518) 474-4177

Laboratory Response Network
Biothreat Tracking Form

855

856 **Specimen Information**

857 Incident ID# _____ Collection Date/Time _____

858 Investigating agency and contact information _____

859 Collection County _____

860 Collection Site (address) _____

861 Targeted Individual's name (if any) _____

862 Specimen Description _____

863 _____

864

865 **Collection Site Information**

866 Building evacuated no yes details _____

867 Ventilation system shut down no yes details _____

868 Site/building locked-down no yes details _____

869 Media on-site no yes details _____

870 Medical response initiated no yes details _____

871

872 **Credible Biohazard Assessment Criteria**

873 Stated or implied Threat no yes describe _____

874 Visible, testable Material no yes describe _____

875 Uncertain or suspicious Origin no yes describe _____

876 Exposure or illness

877 Targeted individual no yes illness _____

878 First responders no yes illness _____

879 Sample collectors no yes illness _____

880

881 Credible Biohazard Assessment performed by _____

882 Field Hazard Screens performed by _____

883 Explosive Device negative Instrument used _____

884 Chemical Hazard negative Instrument used _____

885 Rad/Nuc Hazard negative Instrument used _____

886 **ALL samples must be NEGATIVE by ALL Screens to be accepted at testing laboratory**

887

888 Sample Collected by _____

889 Sample Container Decontaminated by _____

890 UNYRIC notified (by whom) _____ date/time _____

891 NYSPIN BIO1 submitted (by whom) _____ date/time _____

892

893 Submitter Information

894 Name _____

895 Phone () - _____ After hours () - _____ Message OK? yes no

896

897 **Report Results To (if different than Submitter)**

898 Name _____

899 Phone () - _____ After hours () - _____ Message OK? yes no

900

901 **Incomplete information reporting on this tracking form or a failure to conduct hazard screening**
902 procedures as outlined will result in this sample being refused at the laboratory and/or returned to the
903 submitting agency.

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905 White and Yellow copies to lab Pink copy to law enforcement Blue copy to local health department

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907DOH 4348 (04/05)

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909 X-4.2 EXAMPLE SPECIMEN SUBMISSION FORM
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 911

William A. Hinton State Laboratory Institute
 Massachusetts Department of Public Health
 305 South Street, Jamaica Plain, MA 02130
 (617) 590-6390

Biological/Chemical Specimen Submission Form
Environmental Threat

<i>Do not write in this box; SLI use only</i>	
SLI TRACKING NUMBER <small>(One SLI Tracking # Per Package)</small>	BT LAB NUMBER(S):
Received By Print Name: _____	
Signature: _____	
Date Received: ____/____/____	Time Received: _____ am pm
Priority Sample <input type="checkbox"/> Yes <input type="checkbox"/> No	

1	COLLECTOR/SUBMITTER INCIDENT IDENTIFIER #: _____	INCIDENT REPORT ATTACHED? Yes No	EVIDENCE? Yes No	SPECIMEN SCREENED? Yes No (if yes, fill out back of form)
SAMPLE DESCRIPTION: _____				
DATE COLLECTED: ____/____/____ TIME COLLECTED: _____ am pm COLLECTED BY: _____ (print name)				
2	LOCATION WHERE SAMPLE WAS COLLECTED:			
Location Name: _____		Telephone: _____		
Address: _____		Fax: _____		
_____		Contact Name: _____		
3	COLLECTOR INFORMATION:	4 SUBMITTER INFORMATION: <input type="checkbox"/> SAME AS COLLECTOR		
Contact Name (Lab Report To): _____		Contact Name (Lab Report To): _____		
Organization: _____		Organization: _____		
Address: _____		Address: _____		
_____		_____		
Telephone: _____		Telephone: _____		
5	DELIVERY TO STATE LABORATORY INFORMATION:			
Delivered By (Name): _____		Organization: _____		
Delivered By (Title): _____		Badge Number: _____		

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TH FOR REVIEW DO NOT

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