2010 Standardized Equipment List (SEL)

FOREWORD

The Standardized Equipment List (SEL) is provided to the responder community by the InterAgency Board for Equipment Standardization and Interoperability (IAB). The SEL has traditionally contained a list of generic equipment recommended by the IAB to local, state, and federal government organizations in preparing for and responding to all Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) events. This edition continues the transition to a broader "all-hazards" SEL, *while maintaining an emphasis on CBRNE events.*

The SEL is a guideline, and its use is voluntary. The SEL promotes interoperability and standardization across the response community at the local, state, and federal levels by offering a standard reference and a common set of terminology. The IAB does not assume any liability for the performance of equipment items mentioned in the SEL.

The most current SEL is printed and distributed each year in conjunction with the IAB Annual Report. This printed edition is always preceded by a complete review of the SEL, and thus contains numerous changes and updates. However, the SEL master is maintained online in order to keep pace with maturing and emerging technologies. It is available in interactive format on the IAB web site, www.iab. gov. The SEL is updated on line as required, and each online record includes the date and time of its most recent change. Local, Tribal, State, or Federal Government organizations may present suggested changes at any time for consideration.

Alignment with the DHS Authorized Equipment List

The numbering scheme and structure of the SEL are aligned with the Authorized Equipment List (AEL) produced by DHS. Originally a subset of the SEL, the AEL is the equipment purchase grant guidance for several major grant programs, including the entire DHS Homeland Security Grant Program (HSGP). It is currently maintained by the FEMA Grant Programs Directorate of DHS. The SEL/AEL alignment is the result of a multi-year effort undertaken so that the responder community could easily obtain grant allowability information from DHS alongside the features and operating consideration information contained in the SEL.

The SEL and AEL each contain 21 sections, as follows:

1. Personal Protective Equipment
2. Explosive Device Mitigation and Remediation Equipment
3. Operational and Search & Rescue Equipment
4. Information Technology
5. CyberSecurity Enhancement Equipment
6. Interoperable Communications Equipment
7. Detection
8. Decontamination
9. Medical
10. Power
11. Reference Materials
12. Incident Response Vehicles
13. Terrorism Incident Prevention Equipment
14. Physical Security Enhancement Equipment

15. Inspection and Screening Systems

16. (Reserved in SEL, currently used by AEL only)

17. CBRNE Prevention and Response Watercraft

18. CBRNE Aviation Equipment

19. CBRNE Logistical Support Equipment

20. Intervention Equipment

21. Other Authorized Equipment

Section 16 of the AEL is entitled "Agricultural Terrorism Prevention, Response, and Mitigation Equipment." It is currently "Reserved" in the SEL numbering scheme while items are being considered for incorporation into the SEL. The IAB continues to work closely with FEMA's Grant Programs Directorate to ensure the closest possible correlation between the two lists.

SEL/AEL Numbering Scheme

The SEL and the DHS AEL both utilize the numbering scheme originally introduced in the 2003 SEL. The format for SEL/AEL numbers is 99xx-88-yyyy, where

99	is the section number, from 01 through 99 (currently 01 through 21 are used as shown above).
xx	is the category. It is alphanumeric and unique within its section. For example, within Personal Protective Equipment, all items associated with the NFPA 1994 standard will have the category "CB".
88	is the numeric subcategory. For example, within the Personal Protective Equipment Section, the NFPA 1994 Class 2 Ensemble has a subgroup code of "02". This code may be set to "00" when not required.
yyyy	is the item identifier. It is alphanumeric and unique within its section, class, and group. Using an alphanumeric code at this level increases flexibility, and decreases the chance of human error. For example, the Hard Hat in the personal protective equipment section uses the item identifier "HHAT."

IAB Reorganization Impact

The current IAB internal organization is the result of a reorganization initiative begun in 2008. The purpose and impact of this reorganization is explained in the 2010 Annual Report. The new IAB organization has a significant impact on the SEL, since the new Equipment SubGroup (ESG) has sole responsibility for its maintenance and publication. The ESG is the largest working group within the IAB, and has representatives from several of the previous SubGroups. The ESG also draws subject matter expertise from across the IAB to support its mission of maintaining the SEL. While the ESG has multiple missions and priorities as described in the Annual Report, its highest priority is the continuation of the SEL. Readers of previous SEL editions will note that the SubGroup ownership information in the introduction to each section has been removed, since all sections are now maintained by the ESG.

2010 Changes

The 2010 SEL includes 671 items, 176 of which have been changed or added in this edition. There were 14 deletions in this edition; however, 9 of these were due to the replacement of surface water operations items by a new Category as described in the introduction to Section 1.

Each section introduction in this edition will use a new table format to summarize 2010 changes for the reader. An example is shown below using the totals for this edition:

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
141	35	14

Training Requirements

The inclusion of **Training Requirements** for each SEL item began in the 2008 Edition. These requirements were developed by the Training SubGroup in cooperation with each of the four SubGroups responsible for SEL content, and have been updated in this edition. Each item contains training requirement information in three parts:

- **Core Training** requirements, which describe the fundamental baseline training (as opposed to product specific training) required for operation, usually by reference to one or more key documents (such as a standard containing minimum qualifications) or certifications (such as a diver's certificate).

- **Initial Training** requirements, which quantify the amount of training needed to utilize the specific piece of equipment, presented as Minimal (< 1 day), Moderate (1-2 days), or Extensive (>2 days).

- **Sustainment Training** requirements, which quantify the amount of annual recurrent training needed to maintain proficiency in using the specific piece of equipment. Again, the requirement is presented as Minimal (< 1 day), Moderate (1-2 days), or Extensive (>2 days).

In some cases, additional information is supplied. For example, some bomb squad items show Sustainment Training as "Extensive (>2 days) with 3-yr recertification rqt" to remind users of the 3-year recertification requirement for FBI-accredited bomb squad members.

Selection Factors and Mission-Specific SubLists

Since 2004, Sections 1-9 of the SEL have included selection factors to provide an alternate method of referencing SEL items. The goal was to allow searches based upon a combination of mission factors, usually one threat/environment factor and one personnel-related factor.   In 2009, the ESG began examining the efficacy of these selection factors. They found that the use of unique factor definitions for different SEL sections was confusing to users, and that in some cases factors were defined merely to "force-fit" the selection scheme for a given section. Further, the apparent usage of these factors was too low to justify the effort involved in maintenance.

While reviewing the selection factors, the ESG noted that the list developed in 2008 for Medical Points of Dispensing (the POD-List) was relatively well understood and easy to use. Instead of requiring a matrix, the POD-List was a simple "sublist" in which any applicable SEL item from any section was checked for inclusion. A second sublist for Mortuary Operations was already being created by the Health, Medical, and Responder Safety SubGroup. This prompted a decision by the ESG to abandon the selection factor approach for all sections except Section 1, and to utilize "Mission Specific SubLists" to replace the selection factor process.

This edition features eight Mission Specific SubLists, as described in the introduction to Section 9. Additional sublists will be considered in 2011, and the selection factors for Section 1 will be reexamined to see whether they can adequately capture the critical information involved in PPE selection.

On-Line Versions of the SEL

In addition to this printed version and its accompanying CD-ROM, a searchable version of the 2010 SEL is accessible on line at the IAB web site (www.iab.gov). As mentioned above, this version of the SEL is considered the master and will always contain the latest updates. The IAB site also allows users to download the printed version of the SEL and the IAB Annual Report in PDF format.

Another version of the SEL is available as part of the Responder Knowledge Base (RKB), at www.rkb.us. The RKB's SEL display includes all of the equipment information, and implements interactive selection factors to assist users in determining the IAB's recommendations. It also provides links to related standards, products, grants, and other equipment-related information, as well as an integrated display option that combines elements from the SEL and AEL.

Abbreviated Print Format and CD-ROM

Since adding features and operating considerations information in 2004, the printed version of the SEL expanded steadily. With the introduction of the training requirements in 2008, the sheer volume of the SEL reached a point where continuing to print in the same format would possibly have required two volumes. As a result, the 2008 edition became the first to "streamline" the printed SEL to include only the SEL Number, Title, and Description of each item. This edition continues that format. A CD-ROM is enclosed inside the back cover of the printed edition that contains both PDF versions of the printed document and a complete interactive version of the SEL. The SEL on the CD-ROM is formatted identically to the on-line SEL, contains complete information on every item, and is viewable offline on virtually any computer using a Web browser.

Summary

The 2010 SEL represents the collective efforts of the InterAgency Board members and several related support organizations to provide recommendations for response to emergencies, disasters, and CBRNE incidents. Like all previous versions, it is intended to provide the best possible information in support of all emergency responders. Suggestions and comments are welcome.

Overview

The capabilities of and requirements for personal protective equipment continue to evolve rapidly. One example is the release of *NFPA 1952: Standard on Surface Water Operations Protective Clothing and Equipment*, which resulted in an entirely new category within this section (see below). In addition, this edition continues the transition to a broader, "all-hazards" SEL, while maintaining an emphasis on CBRNE events. This transition is responsible for the addition of several respiratory protection items (such as Closed-Circuit SCBA) for which CBRN standards do not yet exist. The importance of these items in all-hazards response dictated that they be added in this edition, with the intention of adding applicable CBRN standards for them when they are published.

Performance Standards

The importance of performance-based consensus standards in the certification, procurement, and use of personal protective equipment for emergency responders and first receivers cannot be overstated. The Equipment SubGroup continues to devote significant effort to identifying useful standards, defining requirements for standards not yet available, and participating in the standards development process. The Standards List at the end of the SEL shows 184 standards and special reference publications related to the SEL, 49 of which have been formally adopted by the IAB.

One of the most critical standards requirements cited by the IAB over the past six years has been the need for a performance-based personal protective equipment standard that specifically addresses the law enforcement mission. The National Institute for Justice (NIJ), under its Law Enforcement and Corrections Standards and Testing Program, has completed the development of *NIJ Standard 0116.00, CBRN Protective Ensemble Standard for Law Enforcement*, and this new standard was signed by the Director on October 18, 2010. Publication is expected in December 2010, and four new SEL items have been added to address the four ensembles introduced in this newest PPE standard. Two companion documents are planned for this standard: *NIJ CR-0116.00, Law Enforcement CBRN Protective Ensemble Certification Program Requirements*, and *NIJ Guide 0116.00, Law Enforcement CBRN Protective Ensemble Selection and Application Guide*. The latter will provide procurement, selection, care, maintenance, training, and administrative guidance related to law enforcement CBRN protective ensembles. The IAB and the PP&OE Subgroup have been strong advocates for the development of this new CBRN ensemble standard, and several members of the IAB were participants on the NIJ Special Technical Committee (STC) that developed it.

A second critical NIJ standard development effort also appears to be nearing completion. The NIJ and the Department of Homeland Security are finalizing work on the development of an NIJ Standard for civilian bomb suits. This effort is being managed by the National Institute of Standards and Technology's Office of Law Enforcement Standards. The requirement for a bomb suit standard was generated by the IAB in close cooperation with the National Bomb Squad Commanders Advisory Board. It is currently anticipated that this long-awaited standard will be available in late 2010 or early 2011.

Section Changes for 2010

In addition to routine edits and updates, major changes occurred in two Categories: Respiratory Protection Equipment (AR), and Water Operations PPE (WA).

Several New Items were added to the "01" SubCategory of Respiratory Protection Equipment, including Supplied-Air Respirators (SAR), Closed-Circuit Self-Contained Breathing Apparatus (CC-SCBA), and Reusable Particulate Respirators. This caused the title of that SubCategory to be changed from "CBRN Self-Contained Breathing Apparatus (SCBA) and Supplied-Air Respirators (SAR)" to the more inclusive

"Self-Contained and Supplied-Air Respirators." The CC-SCBA item had previously been withheld from the list because it had no associated CBRN standard. However, the importance of this item in the all-hazards context, combined with the fact that NIOSH NPPTL is working on a CBRN standard, convinced the SubGroup to add the item in this edition. When a CBRN standard is available, it will be incorporated into the definition of this item and made mandatory.

As mentioned above, a new category 01CL, NIJ 0116.00 Law Enforcement CBRN Protective Ensembles has been added, containing four new items that correspond to the Law Enforcement Response Level (LERL) 1, 2, 3, and 4.

The other major change was made to accommodate the release of the new NFPA 1952 standard. All nine surface water items from the previous SubCategory 01WA-04 were deleted, and a new Category 01SW called "NFPA 1952, Surface Water Operations Protective Clothing and Equipment" was created. This places NFPA 1952-compliant items on the same level as other NFPA ensembles such as 1991 and 1971. A complete set of surface water operations items was added to match the items defined in the new standard.

Finally, a new item was added to reflect the emergence of viable systems for real-time physiological monitoring of personnel.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
23	18	9

New Items:

01AR-01-SAR	Respirator, Supplied Air
01AR-01-SCCC	Respirator, Full-Facepiece, Closed-Circuit, Self-Contained
01AR-06-FLTR	Filter, Particulate
01AR-06-REUS	Respirator, Particulate, Reusable
01CL-01-ENSM	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL-1)
01CL-02-ENSM	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL-2)
01CL-03-ENSM	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL-3)
01CL-04-ENSM	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL-4)
01SW-01-FTWR	Footwear, Surface Water Operations Protective Dry Suit, NFPA 1952
01SW-01-GLOV	Gloves, Surface Water Operations Protective Dry Suit, NFPA 1952
01SW-01-SUIT	Suit, Dry, Surface Water Operations Protective, NFPA 1952
01SW-02-FTWR	Footwear, Surface Water Operations Protective Wet Suit, NFPA 1952
01SW-02-GLOV	Gloves, Surface Water Operations Protective Wet Suit, NFPA 1952
01SW-02-SUIT	Suit, Wet, Surface Water Operations Protective, NFPA 1952
01SW-03-FTWR	Footwear, Surface Water Operations Protective Ice Suit, NFPA 1952
01SW-03-GLOV	Gloves, Surface Water Operations Protective Ice Suit, NFPA 1952
01SW-03-SUIT	Suit, Ice, Surface Water Operations Protective, NFPA 1952

01SW-04-FINS	Fins, Surface Water Operations
01SW-04-HLMT	Helmet, Protective, Surface Water Operations, NFPA 1952
01SW-04-SPFD	Device, Personal Flotation, Surface Water Operations, NFPA 1952
01SW-04-UNDR	Undergarment, Surface Water Operations
01ZA-01-PPMS	System, Personnel Physiological Monitoring

The Ensemble Selection Process

In order to select the appropriate PPE ensemble, all sectors of the emergency response community must first complete a thorough threat assessment that at least identifies the most probable mission scenarios. Such scenarios should, at a minimum, address two major areas:

- What are the "hazards" likely to be encountered, e.g. chemical (vapors, liquids, particulates), biological, radiological, explosive, etc.?

- What is the likely "mission" (job function) of each responder during the event, and what are the type, level, and likelihood of exposure to potential hazards?

Although the tendency is to try to prepare for every eventuality, that approach is generally neither financially feasible nor appropriate. Thus, the community should determine the most credible and likely threat "scenarios" as a basis for planning. This assessment can only occur through a coordinated communication and planning effort involving emergency response organizations, emergency planning officials, and the intelligence community.

This coordinated planning effort should produce an "inventory" of the most likely scenarios, as well as anticipated responder roles. The results can then be evaluated in the context of known standards and testing programs to identify suitable protections. Completing this organized process of assessing the threat, planning the response, and identifying equipment gaps as a prerequisite to equipment selection is strongly encouraged.

Selection Factors

As mentioned in the SEL Introduction, the ESG has eliminated Selection Factors in all sections except this one. Because of the criticality of PPE selection, the SubGroup decided to work on revising the Hazard Environment and Mission Role matrix previously used to display the selection factors for Section 1. The matrix poses several challenges. First, there are a number of hazard categories such as surface water that need to be integrated; second, the mission roles need to be updated; third, the granularity of the categories on both axes must be reviewed to make sure that the matrix provides realistic and useful hazard-role combinations; and finally, when actually applying the matrix to a given product type, the selection factors need to be able to distinguish between appropriate protection and overprotection.

This edition of the SEL will omit the Section 1 selection factor matrix. The results of the planned revision will be published in the 2011 edition.

PPE Standards and Hazard Environments

While the roles-hazards matrix does not appear in this edition, a current version of the matrix of PPE standards versus hazard environments is shown below. This edition of the SEL updates the table to include NFPA 1952 and NIJ 0116.00. Start with the left side of this chart to select the types of hazards that may be potentially encountered. Then look across the top of the chart to find the current nationally recognized standard(s) that address the selected hazards. Note that an "A-E-L-O" coding scheme is used in this table, indicating "Appropriate", "Escape", "Limited", and "Overprotection." This coding scheme addresses the overprotection challenge discussed above: for any given combination, the

ensemble might provide the recommended level of protection from the hazard; only enough protection to flee the scene; limited protection from TICs/TIMS; or a level of protection in excess of that required (which is generally accompanied by performance, dexterity or heat stress penalties).

Exposure/Hazard (High = IDLH, Low = STEL/TLV)	NIOSH CBRN-SCBA	NIOSH CBRN-APR[5]	NIOSH CBRN PAPR (TF/Hd)[10]	NIOSH CBRN Escape (SC)[8]	NIOSH CBRN Escape (AP)[8]	NFPA 1999	NFPA 1999 CBRN	NFPA 1991	NFPA 1991 with Flash Fire Option	NFPA 1994 Class 2	NFPA 1994 Class 3	NFPA 1994 Class 4	NFPA 1992 (Liquid Splash)	NFPA 1952	NFPA 1951 Utility	NFPA 1951 Rescue & Recovery	NFPA 1951 CBRN	NIJ 0116.00 LERL-1	NIJ 0116.00 LERL-2	NIJ 0116.00 LERL-3	NIJ 0116.00 LERL-4	NIJ Bullet Resistant Body Armor	DOD-Advanced Bomb Suit Performance Specification	NFPA 1971 - Structural	NFPA 1971 - Proximity	NFPA 1971 - Structural CBRN	NFPA 1971 - Proximity CBRN	NFPA 1977 - Wildland
Respiratory Protection / Personal Protective Clothing																												
Unknown Environment	A					A	A	A										A	A							A	A	
Chemical																												
Vapor/Gas/Aerosol (High Respiratory[1], High Dermal[3])	A					A	A	A										A	A							A	A	
Vapor/Gas/Aerosol (High Respiratory[1], Low Dermal[4])	A					A	A	A										A	A							A	A	
Vapor/Gas/Aerosol (Low Respiratory[2], Low Dermal)	O	A	A	E	E	O	O	O		A							A	O	O	A	A					O	A	
Liquids (High)[6]	A					O	O	O		L			L					O	O							O	A	
Liquids (Low)[6]	O	A	A	E	E	O	O	O		A			L				A	O	O	A	A					O	A	
Particulates (High)	A					O	O	O	O	A							O	O	O	O	O					O	O	
Particulates (Low)	O	A	A	E	E	O	O	O	O	A							O	O	O	O	O					O	O	
Biological																												
Airborne	O	A	A	E	E			A	O	O	O	O	A				O	O	O	O	O					O	O	
Liquid-borne	O	A	A	E	E	A	O	O	O	O	O	A	A				A	O	O	O	O			A	A	O	O	
Radiological/ Nuclear[7]																												
Particulate/Liquid (Alpha and Beta)	O	A	A	E	E			A	A	A	A	A	A				A	A	A	A	A					A	A	
Penetrating Gamma/X-Ray																												
Thermal																												
Flash Fire	A								A						A	A	A	A						A	A	A	A	
Sustained Fire	A																							A	A	A	A	
Wildland Fire																								O	O	O	O	A
Explosive																												
Pre-Detonation																							A					
Post-Detonation[9]																A	A						A	A	A	A	A	
Ballistic																												
Armed Assaults, Force Protection, Hostage Rescue																						A						
Surface Water																												
Surface Water, Including Swiftwater and Ice														A														

Key to Matrix Values:

Blank cells indicate an inappropriate protective ensemble for that hazard.

A "Appropriate" - Provides appropriate protection from the indicated CBRN exposure.

E "Escape" - Provides protection from the indicated CBRNE exposure for escape purposes only. Not intended for operations in the indicated hazard environment.

L "Limited" - Does not provide specific protection from CBRNE exposure but may provide limited protection from collateral exposure such as TICs/TIMs once CBRN hazards have been mitigated.

O "Overprotection" - Provides protection in excess of that required to address the indicated hazard. Overprotection may result in undesirable tradeoffs such as increased heat stress or loss of functionality.

[1] "High Respiratory" indicates that airborne concentrations are anticipated to be at or above IDLH or respirator maximum use concentration levels.

[2] "Low Respiratory" indicates that airborne concentration is at or above published Short Term Exposure Limits (STEL) but less than IDLH or respirator maximum use concentration.

[3] "High Dermal" indicates a significant dermal contact or absorption risk for acute/chronic skin toxicity, sensitization, corrosiveness, or systemic health effects via skin contact (e.g. carcinogens).

[4] "Low Dermal" suggests that vapors or gases are not in a high enough concentration to create a condition that is immediately dangerous to the wearer or conducive to systemic or acute/chronic health effects via skin contact (e.g. carcinogens).

[5] Canisters used for APRs and canisters/cartridges used for PAPRs may have significant life limitations in airborne particulate hazards of sufficient quantity to cause filter loading.

[6] High/Low with regard to liquid chemical hazards. Although expressed in this matrix in general terms, selection of respiratory levels of protection would be dependent upon the volatility of the material and results of quantitative analysis of airborne concentrations.

[7] The specific hazard/exposure indicated is radiological. Nuclear hazard environments will also include thermal and explosive components if detonation occurs.

[8] CBRN Escape Respirators are grouped into two categories for this table: Air Purifying (AP), which includes respirators with and without the carbon monoxide (CO) option, and Self Contained (SC), which has its own air supply. Protections are limited to duration required for escape activity.

[9] In the post-detonation setting, the primary hazard is assumed to be physical hazards. However, other chemical, biological or radiological hazards may be present and a hazard/risk assessment must be conducted in order to identify such hazards prior to final selection of a proper protective ensemble.

[10] NIOSH CBRN PAPR includes units that are tight fitting (TF) and hooded (Hd).

Summary

Section 1 of the SEL is intended to provide the best possible guidance in selecting personal protective equipment based upon the anticipated hazard environment(s) and the mission role of the user. This guidance is based principally on CBRNE hazards; other hazards must be considered in a thorough hazard and risk assessment, which is required by OSHA for the selection of PPE. However, no guidance can replace the fundamental requirement to examine a community's most likely exposure to various hazards and mission roles for its personnel prior to PPE selection.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
AR - Respiratory Protection Equipment 01 Self-Contained and Supplied-Air Respirators			
01AR-01-SAR*	Respirator, Supplied Air	A positive-pressure respiratory protective device that delivers air to the wearer via an "air-line" connected to a remote breathable air source. SAR must be certified by NIOSH, and can be worn with multiple ensemble configurations.	47, 50, 58, 133, 137, 138, 153
01AR-01-SCBA	SCBA, CBRN	CBRN SCBA - Self-Contained Breathing Apparatus certified as compliant with NFPA 1981 and certified by NIOSH as compliant with the CBRN approval criteria. Worn with multiple ensemble configurations.	47, 50, 58, 62, 133, 137, 138, 143, 150, 151, 153
01AR-01-SCBC	Cylinders and Valve Assemblies, Spare, and Service/Repair Kits, CBRN SCBA	Spare SCBA Cylinders and valve assemblies, and service/repair kits for item 01AR-01-SCBA. Cylinders and parts/assemblies must be purchased from the SCBA manufacturer or a source authorized by the manufacturer to ensure that the NIOSH CBRN approval of the SCBA remains valid.	47, 50, 62, 67, 133, 137, 138, 143, 150
01AR-01-SCBR*	Kit, Retrofit, CBRN SCBA	Retrofit kit for existing Self-Contained Breathing Apparatus to bring the unit into CBRN compliance. Kit must bring apparatus into compliance with NFPA 1981 and the NIOSH CBRN approval criteria.	47, 50, 58, 62, 133, 137, 138, 143, 150
01AR-01-SCCC*	Respirator, Full-Facepiece, Closed-Circuit, Self-Contained	Full-Facepiece Self-Contained Breathing Apparatus that recirculates the breathing air through the apparatus and purifies it, removing carbon dioxide and adding fresh oxygen. The wearer is supplied with air that has been oxygen enriched.	47, 50, 58, 133, 137, 138
AR - Respiratory Protection Equipment 02 CBRN Air-Purifying Respirator (APR)			
01AR-02-APR	Respirator, Air-Purifying, Full-Face, Tight-Fitting, Negative Pressure, CBRN	CBRN Air-Purifying Respirator (APR) (certified by NIOSH as compliant with the CBRN approval criteria). Worn with multiple ensemble configurations.	47, 50, 58, 60, 133, 137, 138
01AR-02-APRC	Canister, CBRN, APR	CBRN canisters for Item 01AR-02-APR.	47, 50, 58, 60, 133, 137, 138

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
AR - Respiratory Protection Equipment 03 CBRN Powered Air-Purifying Respirator (PAPR)			
01AR-03-PAPA*	Respirator, Powered, Air-Purifying (PAPR), CBRN	CBRN Powered Air-Purifying Respirator (PAPR) (certified by NIOSH as compliant with CBRN approval criteria). Worn with multiple ensemble configurations.	47, 50, 58, 61, 133, 137, 138
01AR-03-PAPB	Battery Pack, PAPR	Battery pack for item 01AR-03-PAPA.	47, 50, 58, 61, 133, 137
01AR-03-PAPC	Canister, CBRN, PAPR	CBRN Canisters for Item 01AR-03-PAPR	47, 50, 58, 61, 133, 137, 138
AR - Respiratory Protection Equipment 04 CBRN Escape Respirator			
01AR-04-APEC	Respirator, Escape, Air-Purifying, Single-Use, CBRN, with CO Option	CBRN Air-Purifying Escape Respirator (APER) designed for escape from hazardous environments, including carbon monoxide (certified by NIOSH as compliant with the CBRN approval criteria).	47, 50, 58, 59, 133, 137, 138
01AR-04-APER	Respirator, Escape, Air-Purifying, Single-Use, CBRN	CBRN Air-Purifying Escape Respirator (APER) designed for escape from hazardous environments (certified by NIOSH as compliant with the CBRN approval criteria).	47, 50, 58, 59, 133, 137, 138
01AR-04-SCER	Respirator, Escape, Self-Contained, Single-Use, CBRN	CBRN Self-Contained Escape Respirator (SCER) designed for escape from hazardous and oxygen-deficient environments (certified by NIOSH as compliant with the CBRN approval criteria).	47, 50, 58, 59, 137
AR - Respiratory Protection Equipment 05 Combination Respiratory Equipment			
01AR-05-COMB	Equipment, Respiratory Protection, Combination	Respiratory protection equipment that performs in multiple modes corresponding to various respirator types, such as a combination of Self Contained Breathing Apparatus (SCBA) and Powered Air Purifying Respirator (PAPR). Must be certified by NIOSH as a compliant combination respirator in accordance with 42 CFR 84. Each mode of operation must comply with the applicable NIOSH CBRN approval criteria. If no CBRN standard is established for a given mode of operation, the equipment must be certified in that mode under 42 CFR 84. Appropriate Cautions and Limitations of Use apply for each respirator type/mode of operation.	47, 50, 58, 60, 61, 62, 133, 137, 138, 143, 150, 151

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
AR - Respiratory Protection Equipment 06 Particulate Respirators			
01AR-06-DISP	Respirator, Particulate, Disposable	Respirator certified by NIOSH under 42 CFR 84 and classified as one of nine types of filtering-facepiece disposable particulate respirators (N95, N99, N100; R95, R99, R100; P95, P99, P100).	47, 50, 58, 137
01AR-06-FLTR*	Filter, Particulate	Cartridge, canister, or other filtration media for use with reusable particulate respirator facepiece (see 01AR-06-REUS). Certified by NIOSH as one of the following: N95, N99, N100; R95, R99, R100; P95, P99, P100.	47, 50, 58, 137
01AR-06-REUS*	Respirator, Particulate, Reusable	Respirator certified by NIOSH under 42 CFR 84, consisting of a tight-fitting elastomeric facepiece (capable of being decontaminated and reused) and particulate filtration media (cartridges, canisters) certified by NIOSH as one of the following: N95, N99, N100; R95, R99, R100; P95, P99, P100.	47, 50, 58, 137
AR - Respiratory Protection Equipment 07 Support Equipment			
01AR-07-FTST	Tester, Mask Leak/Fit	A device used for performing fit testing of respirator facepieces to determine quality of face to mask seal.	50, 137
01AR-07-QUAL*	System, Compressed Breathing Air Quality Testing	A system for testing the quality of compressed breathing air used to fill cylinders for air-supplying respirators.	50, 72, 137, 153
CB - NFPA 1994 CBRN Terrorism Protective Ensembles 02 NFPA 1994 Class 2 Ensembles			
01CB-02-ENSM	Ensemble, Terrorism Incident Protective, NFPA 1994 Class 2	NFPA 1994 Class 2 CBRN Terrorism Incident Protective Ensemble, including garment, gloves, footwear, and CBRN SCBA (certified as compliant with NFPA 1994). NFPA 1994 Class 2 certifications specify these elements by make/model -- using any element other than those specified invalidates the certification. The elements of this Item should be purchased and used as a complete ensemble.	47, 48, 62, 133, 138, 150, 156, 168
01CB-02-TRST	Suit, Training	Training suit based on similar design, but different materials than Item 01CB-02-ENSM.	47, 48, 133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
CB - NFPA 1994 CBRN Terrorism Protective Ensembles 03 NFPA 1994 Class 3 Ensembles			
01CB-03-ENSM	Ensemble, Terrorism Incident Protective, NFPA 1994 Class 3	NFPA 1994 Class 3 CBRN Terrorism Incident Protective Ensemble, including garment, gloves, footwear, and CBRN APR or PAPR (certified as compliant with NFPA 1994). NFPA 1994 Class 3 certifications specify these elements by make/model -- using any element other than those specified invalidates the certification. The elements of this Item should be purchased and used as a complete ensemble.	47, 48, 60, 61, 133, 138, 156, 168
01CB-03-TRST	Suit, Training	Training suit based on similar design, but different materials than Item 01CB-03-ENSM.	47, 48, 133
CB - NFPA 1994 CBRN Terrorism Protective Ensembles 04 NFPA 1994 Class 4 Ensembles			
01CB-04-ENSM	Ensemble, Terrorism Incident Protective, NFPA 1994 Class 4	NFPA 1994 Class 4 CBRN Terrorism Incident Protective Ensemble, including garment, gloves, footwear, and CBRN APR or PAPR (certified as compliant with NFPA 1994). NFPA 1994 Class 4 certifications specify these elements by make/model -- using any element other than those specified invalidates the certification. The elements of this Item should be purchased and used as a complete ensemble.	47, 48, 55, 60, 61, 133, 138, 156, 168
CL - NIJ 0116.00 Law Enforcement CBRN Protective Ensembles 01 Law Enforcement Response Level 1 (LERL-1)			
01CL-01-ENSM*	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL-1)	Law Enforcement CBRN Protective Ensemble (including garment elements, hand protection elements, foot protection elements, and CBRN SCBA) certified as compliant with NIJ 0116.00. The requirements for Law Enforcement Response Level 1 (LERL-1) apply to ensemble models and ensemble elements intended to provide protection to law enforcement personnel making tactical entry into environments involving CBRN hazards, conditions in which contaminant concentrations are unknown or are known to be at or above immediately dangerous to life and health (IDLH) levels and/ or the atmosphere is oxygen deficient, requiring the use of a NIOSH-compliant CBRN self-contained breathing apparatus (SCBA), and flame and flash fire hazards. LERL-1 ensembles are intended to withstand the rigorous use associated with tactical operations. These ensemble models are required to be tested against two CWAs and 24 TICs that are representative of many chemical threats. NIJ 0116.00 LERL-1 ensemble certifications specify all constituent elements (garment elements, hand protection elements, foot protection elements, and CBRN SCBA) by manufacturer and model number. These ensembles must be worn as complete ensembles with all elements, and using any element other than those specified within the ensemble certification invalidates the certification	47, 48, 50, 62, 133, 150, 160, 161, 166, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
CL - NIJ 0116.00 Law Enforcement CBRN Protective Ensembles 02 Law Enforcement Response Level 2 (LERL–2)			
01CL-02-ENSM*	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL–2)	Law Enforcement CBRN Protective Ensemble (including garment elements, hand protection elements, foot protection elements, and CBRN SCBA) certified as compliant with NIJ 0116.00. The requirements for Law Enforcement Response Level 2 (LERL–2) apply to ensemble models and ensemble elements intended to provide protection to law enforcement personnel making tactical entry into environments involving CBRN hazards and conditions in which contaminant concentrations are unknown or are known to be at or above IDLH levels and/or the atmosphere is oxygen deficient, requiring the use of a NIOSH-compliant CBRN self-contained breathing apparatus (SCBA). LERL–2 ensembles are intended to withstand the rigorous use associated with tactical operations. These ensemble models are required to be tested against two CWAs and five TICs. NIJ 0116.00 LERL–2 ensemble certifications specify all constituent elements (garment elements, hand protection elements, foot protection elements, and CBRN SCBA) by manufacturer and model number. These ensembles must be worn as complete ensembles with all elements, and using any element other than those specified within the ensemble certification invalidates the certification.	47, 48, 50, 62, 133, 150, 160, 161, 166, 168
CL - NIJ 0116.00 Law Enforcement CBRN Protective Ensembles 03 Law Enforcement Response Level 3 (LERL–3)			
01CL-03-ENSM*	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL–3)	Law Enforcement CBRN Protective Ensemble (including garment elements, hand protection elements, foot protection elements, and respiratory protection) certified as compliant with NIJ 0116.00. The requirements for Law Enforcement Response Level 3 (LERL–3) apply to ensemble models and ensemble elements intended to provide protection to law enforcement personnel making tactical entry into environments involving CBRN hazards and conditions in which contaminant concentrations are known to be below IDLH levels and sufficient oxygen levels exist, permitting the use of a NIOSH-compliant CBRN air purifying respirator (APR) or CBRN powered APR (PAPR). LERL–3 ensembles are intended to withstand the rigorous use associated with tactical operations. These ensemble models are required to be tested against the same two CWAs and five TICs as LERL–2 models. NIJ 0116.00 LERL–3 ensemble certifications specify all constituent elements (garment elements, hand protection elements, foot protection elements, and CBRN APR or PAPR) by manufacturer and model number. These ensembles must be worn as complete ensembles with all elements, and using any element other than those specified within the ensemble certification invalidates the certification.	47, 48, 50, 60, 61, 133, 160, 161, 166, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

CL - NIJ 0116.00 Law Enforcement CBRN Protective Ensembles
04 Law Enforcement Response Level 4 (LERL-4)

Item Number	Title	Description	Standards[1]
01CL-04-ENSM*	Ensemble, Law Enforcement CBRN Protective, NIJ 0116.00 (LERL-4)	Law Enforcement CBRN Protective Ensemble (including garment elements, hand protection elements, foot protection elements, and respiratory protection) certified as compliant with NIJ 0116.00. The requirements for Law Enforcement Response Level 4 (LERL-4) apply to ensemble models and ensemble elements intended to provide protection to law enforcement personnel performing perimeter operations at incidents involving CBRN hazards and conditions in which contaminant concentrations are known to be below IDLH levels, permitting the use of a NIOSH-compliant CBRN air purifying respirator (APR) or CBRN powered APR (PAPR), and where mission tasks require less stringent ensemble durability. These ensemble models are required to be tested against the same two CWAs and five TICs as LERL-2 and LERL-3 ensemble models. NIJ 0116.00 LERL-4 ensemble certifications specify all constituent elements (garment elements, hand protection elements, foot protection elements, and CBRN APR or PAPR) by manufacturer and model number. These ensembles must be worn as complete ensembles with all elements, and using any element other than those specified within the ensemble certification invalidates the certification.	47, 48, 50, 60, 61, 133, 160, 161, 166, 168

EM - NFPA 1999 Protective Clothing (Emergency Medical Services)
01 Eye/Face Protection

Item Number	Title	Description	Standards[1]
01EM-01-EFPM	Device, Eye and Face Protection, Emergency Medical, Multiple-Use, NFPA 1999	Multiple-use emergency medical eye and face protection device (certified as compliant with NFPA 1999).	48, 55, 70, 138, 139, 157, 168
01EM-01-EFPS	Device, Eye and Face Protection, Emergency Medical, Single-Use, NFPA 1999	Single-use emergency medical eye and face protection device (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
01EM-01-MASK	Mask, Emergency Medical, Single-Use, NFPA 1999	Single-use emergency medical masks (certified as compliant with NFPA 1999).	48, 55, 91, 138, 139, 157, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
EM - NFPA 1999 Protective Clothing (Emergency Medical Services) 02 Garments			
01EM-02-GARM	Garment, Emergency Medical, Multiple-Use, NFPA 1999	Multiple-use emergency medical protective garment (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
01EM-02-GARS	Garment, Emergency Medical, Single-Use, NFPA 1999	Single-use emergency medical protective garment (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
EM - NFPA 1999 Protective Clothing (Emergency Medical Services) 03 Gloves			
01EM-03-GLCL	Gloves, Emergency Medical, Cleaning, NFPA 1999	Emergency medical cleaning gloves (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
01EM-03-GLME	Gloves, Emergency Medical, Examination, NFPA 1999	Emergency medical examination gloves (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
01EM-03-GLMW	Gloves, Emergency Medical, Work, NFPA 1999	Emergency medical work gloves (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
EM - NFPA 1999 Protective Clothing (Emergency Medical Services) 04 Footwear			
01EM-04-FTWC	Covers, Footwear, Emergency Medical, NFPA 1999	Emergency medical protective footwear covers (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
01EM-04-FTWF	Footwear, Medical Care Facility, NFPA 1999	Medical care facility protective footwear (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168
01EM-04-FTWR	Footwear, Emergency Medical, NFPA 1999	Emergency medical protective footwear (certified as compliant with NFPA 1999).	48, 55, 138, 139, 157, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

[*] *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
LE - Tactical Law Enforcement Protective Equipment 01 Ballistic Protection			
01LE-01-ARMR*	Armor, Body	Personal body armor intended to protect the torso and extremities against small arms fire. This type of personal protective equipment is recommended for personnel involved with tactical operations.	48, 161, 163
01LE-01-HLMT	Helmet, Ballistic	Ballistic helmet intended to protect the wearer against small arms fire and fragmentation threats.	48, 163, 164
01LE-01-SHLD	Shield, Ballistic	Ballistic shield intended to protect personnel against small arms fire and fragmentation threats while conducting operations.	48, 165
LE - Tactical Law Enforcement Protective Equipment 02 Other Items			
01LE-02-BDUS	Specialized Clothing, NFPA 1975 or NFPA 2112	Battle dress uniforms (BDUs), coveralls and jumpsuits that are worn during tactical operations and are constructed of fabrics that will not contribute to injuries in the event of exposure to heat, spark, or flash fire. Certified as compliant with NFPA 1975 or NFPA 2112.	48, 148, 158, 159
1LE-02-BOOT	Boots, Protective, Tactical/Climbing	Boots for tactical operations.	48
01LE-02-PRPD	Padding, Protective, Tactical	General protective pads to provide protection for elbows, knees, neck, and shins while conducting tactical law enforcement operations.	48
PC - NFPA 1971 Ensembles (Proximity Fire Fighting with Optional CBRN Protection) 01 NFPA 1971 CBRN Ensemble			
01PC-01-ENSM	Ensemble, Protective, Proximity Fire Fighting with Optional CBRN Protection, NFPA 1971	Proximity fire fighting protective ensemble with optional CBRN protection (certified as compliant with NFPA 1971).	47, 48, 50, 133, 138, 142, 147, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
PF - NFPA 1971 Ensembles (Proximity Fire Fighting)			
01 Required Elements			
01PF-01-FTWR	Footwear, Protective, Proximity Fire Fighting, NFPA 1971	Proximity fire fighting protective footwear (certified as compliant with NFPA 1971).	48, 133, 138, 142, 147, 168
01PF-01-GARM	Garment, Protective, Proximity Fire Fighting, NFPA 1971	Proximity fire fighting protective garment (certified as compliant with NFPA 1971).	48, 133, 138, 142, 147, 168
01PF-01-GLOV	Gloves, Protective, Proximity Fire Fighting, NFPA 1971	Proximity fire fighting protective gloves (certified as compliant with NFPA 1971).	48, 133, 138, 142, 147, 168
01PF-01-HLMT	Helmet, Protective, Proximity Fire Fighting, NFPA 1971	Proximity fire fighting protective helmet (certified as compliant with NFPA 1971).	48, 133, 138, 142, 147, 168
01PF-01-SHRD	Shroud, Protective, Proximity Fire Fighting, NFPA 1971	Proximity fire fighting protective shroud (certified as compliant with NFPA 1971).	48, 133, 138, 142, 147, 168
SC - NFPA 1971 Ensembles (Structural Fire Fighting with Optional CBRN Protection)			
01 NFPA 1971 CBRN Ensemble			
01SC-01-ENSM	Ensemble, Protective, Structural Fire Fighting with Optional CBRN Protection, NFPA 1971	Structural fire fighting protective ensemble with optional CBRN protection (certified as compliant with NFPA 1971).	47, 48, 50, 55, 133, 138, 142, 147, 168
SF - NFPA 1971 Ensembles (Structural Fire Fighting)			
01 Required Ensemble Elements			
01SF-01-FTWR	Footwear, Structural Fire Fighting Protective, NFPA 1971	Structural fire fighting protective footwear (certified as compliant with NFPA 1971).	48, 55, 133, 138, 142, 147, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

Item Number	Title	Description	Standards[1]
SF - NFPA 1971 Ensembles (Structural Fire Fighting) 01 Required Ensemble Elements - *Continued*			
01SF-01-GARM	Garment, Protective, Structural Fire Fighting, NFPA 1971	Structural fire fighting protective garment (certified as compliant with NFPA 1971).	48, 55, 133, 138, 142, 147, 168
01SF-01-GLOV	Gloves, Protective, Structural Fire Fighting, NFPA 1971	Structural fire fighting protective gloves (certified as compliant with NFPA 1971).	48, 55, 133, 138, 142, 147, 168
01SF-01-HLMT	Helmet, Protective, Structural Fire Fighting, NFPA 1971	Structural fire fighting protective helmet (certified as compliant with NFPA 1971).	48, 55, 133, 138, 142, 147, 168
01SF-01-HOOD	Hood, Protective, Structural Fire Fighting, NFPA 1971	Structural fire fighting protective hood (certified as compliant with NFPA 1971).	48, 55, 133, 138, 142, 147, 168
SP - NFPA 1992 Splash-Protective Ensembles and Items 01 Liquid Splash-Protective Ensemble			
01SP-01-ENSE	Ensemble, Liquid Splash-Protective, Encapsulating, NFPA 1992	Encapsulating liquid splash-protective ensemble (certified as compliant to NFPA 1992).	47, 48, 133, 138, 155, 168
01SP-01-ENSN	Ensemble, Liquid Splash-Protective, Non-Encapsulating, NFPA 1992	Non-encapsulating liquid splash-protective ensemble (certified as compliant to NFPA 1992).	47, 48, 133, 138, 155, 168
SP - NFPA 1992 Splash-Protective Ensembles and Items 02 Liquid Splash-Protective Clothing			
01SP-02-FTWR	Footwear, Liquid Splash-Protective, NFPA 1992	Liquid splash-protective footwear (certified as compliant to NFPA 1992).	47, 48, 133, 138, 155, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
SP - NFPA 1992 Splash-Protective Ensembles and Items 02 Liquid Splash-Protective Clothing - *Continued*			
01SP-02-GLOV	Gloves, Liquid Splash-Protective, NFPA 1992	Liquid splash-protective gloves (certified as compliant to NFPA 1992).	47, 48, 133, 138, 155, 168
01SP-02-GRMT	Garment, Liquid Splash-Protective, NFPA 1992	Liquid splash-protective garment (certified as compliant to NFPA 1992).	47, 48, 133, 138, 155, 168
SW - NFPA 1952 Surface Water Operations Protective Clothing and Equipment 01 Dry Suit Ensembles			
01SW-01-FTWR*	Footwear, Surface Water Operations Protective Dry Suit, NFPA 1952	Protective clothing items used with surface water protective dry suits that are designed to provide minimum protection to the foot, ankle, and lower leg (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-BTES) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
01SW-01-GLOV*	Gloves, Surface Water Operations Protective Dry Suit, NFPA 1952	Items of protective clothing used with surface water protective dry suits that are designed to provide minimum protection to fingers, thumb, hand, and wrist (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-GLOV) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
01SW-01-SUIT*	Suit, Dry, Surface Water Operations Protective, NFPA 1952	A suit that provides exposure protection for water operations (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-GARM). Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
SW – NFPA 1952 Surface Water Operations Protective Clothing and Equipment 02 Wet Suit Ensembles			
01SW-02-FTWR*	Footwear, Surface Water Operations Protective Wet Suit, NFPA 1952	Protective clothing items used with surface water protective wet suits that are designed to provide minimum protection to the foot, ankle, and lower leg (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-BTES) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
01SW-02-GLOV*	Gloves, Surface Water Operations Protective Wet Suit, NFPA 1952	Items of protective clothing used with surface water protective wet suits that are designed to provide minimum protection to fingers, thumb, hand, and wrist (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-GLOV) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
01SW-02-SUIT*	Suit, Wet, Surface Water Operations Protective, NFPA 1952	A permeable suit that preserves body heat by trapping water between the suit and the body (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-SUTW) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
SW – NFPA 1952 Surface Water Operations Protective Clothing and Equipment 03 Ice Suit Ensembles			
01SW-03-FTWR*	Footwear, Surface Water Operations Protective Ice Suit, NFPA 1952	Protective clothing items used with surface water protective ice suits that are designed to provide minimum protection to the foot, ankle, and lower leg (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-BTES) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
01SW-03-GLOV*	Gloves, Surface Water Operations Protective Ice Suit, NFPA 1952	Items of protective clothing used with surface water protective ice suits that are designed to provide minimum protection to fingers, thumb, hand, and wrist (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-GLOV) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
SW - NFPA 1952 Surface Water Operations Protective Clothing and Equipment 03 Ice Suit Ensembles - *Continued*			
01SW-03-SUIT*	Suit, Ice, Surface Water Operations Protective, NFPA 1952	A suit that provides thermal and flotation protection for extreme cold water (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-SUTI) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
SW - NFPA 1952 Surface Water Operations Protective Clothing and Equipment 04 Other Surface Water Operations Items			
01SW-04-FINS*	Fins, Surface Water Operations	Fins worn with surface water rescue ensemble. (Replaces Item 01WA-04-FINR)	135, 141
01SW-04-HLMT*	Helmet, Protective, Surface Water Operations, NFPA 1952	An item of protective equipment designed to provide minimum protection to the head (certified as compliant with NFPA 1952). (Replaces Item 01WA-04-HLMT) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	135, 141, 146
01SW-04-SPFD*	Device, Personal Flotation, Surface Water Operations, NFPA 1952	Personal flotation device (PFD) for surface water operations. PFDs must be approved by the U.S. Coast Guard, Type III or Type V, and certified as compliant with NFPA 1952. Includes common accessories such as attached pealess whistle and signaling devices/lights. (Replaces Item 01WA-04-SPFD) Note: NFPA 1952-2010 became effective on December 5, 2009. The number of certified products available may be limited in the short term.	48, 135, 141, 146
01SW-04-UNDR*	Undergarment, Surface Water Operations	Insulation garment worn under surface water operations dry suit or ice suit. (Replaces Item 01WA-04-UNDR)	135, 141

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
UC - NFPA 1951 CBRN Technical Rescue Protective Ensemble 01 Ensemble			
01UC-01-ENSM*	Ensemble, CBRN Protective, Technical Rescue Incidents, NFPA 1951	CBRN technical rescue incident protective ensemble (certified as compliant with NFPA 1951).	47, 48, 50, 133, 138, 141, 145, 168
UR - NFPA 1951 Rescue and Recovery Technical Rescue Protective Ensemble 01 Ensemble Elements			
01UR-01-EYEP*	Goggles, Rescue and Recovery, Technical Rescue Incidents, NFPA 1951	Rescue and recovery protective ensemble goggles (certified as compliant with NFPA 1951).	47, 48, 70, 133, 138, 141, 145, 168
01UR-01-FTWR*	Footwear, Rescue and Recovery, Protective, Technical Rescue Incidents, NFPA 1951	Rescue and recovery protective ensemble footwear (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168
01UR-01-GARM*	Garment, Rescue and Recovery, Protective, Technical Rescue Incidents, NFPA 1951	Rescue and recovery protective ensemble garment (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168
01UR-01-GLOV*	Gloves, Rescue and Recovery, Protective, Technical Rescue Incidents, NFPA 1951	Rescue and recovery protective ensemble gloves (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168
01UR-01-HLMT*	Helmet, Rescue and Recovery, Protective, Technical Rescue Incidents, NFPA 1951	Rescue and recovery protective ensemble helmet (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
UT - NFPA 1951 Utility Technical Rescue Protective Ensemble 01 Ensemble Elements			
01UT-01-EYEP*	Goggles, Utility, Technical Rescue Incidents, NFPA 1951	Utility protective ensemble goggles (certified as compliant with NFPA 1951).	47, 48, 70, 133, 138, 141, 145, 168
01UT-01-FTWR*	Footwear, Utility, Protective, Technical Rescue Incidents, NFPA 1951	Utility protective ensemble footwear (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168
01UT-01-GARM*	Garment, Utility, Protective, Technical Rescue Incidents, NFPA 1951	Utility protective ensemble garment (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168
01UT-01-GLOV*	Gloves, Utility, Protective, Technical Rescue Incidents, NFPA 1951	Utility protective ensemble gloves (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168
01UT-01-HLMT*	Helmet, Utility, Protective, Technical Rescue Incidents, NFPA 1951	Utility protective ensemble helmet (certified as compliant with NFPA 1951).	47, 48, 133, 138, 141, 145, 168
VF - NFPA 1991 Ensembles with Optional Flash Fire Protection 01 Ensemble			
01VF-01-ENSM	Ensemble, Vapor-Protective, with Optional Flash Fire Protection, NFPA 1991	Vapor-protective ensemble with optional flash fire protection, including totally encapsulating suit with attached or separate gloves and footwear or booties with outer boots (certified as compliant with NFPA 1991 with flash fire protection option).	47, 48, 133, 138, 154, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
VF - NFPA 1991 Ensembles with Optional Flash Fire Protection 02 Required Ensemble Elements			
01VF-02-FTWR	Footwear, Vapor-Protective, with Optional Flash Fire Protection, NFPA 1991	Vapor-protective footwear with optional flash fire protection (certified as compliant with NFPA 1991 with flash fire protection option).	47, 48, 133, 138, 154, 168
01VF-02-GARM	Garment, Vapor-Protective, with Optional Flash Fire Protection, NFPA 1991	Vapor-protective garment with optional flash fire protection (certified as compliant with NFPA 1991 with flash fire protection option).	47, 48, 133, 138, 154, 168
01VF-02-GLOV	Gloves, Vapor-Protective, with Optional Flash Fire Protection, NFPA 1991	Vapor-protective gloves with optional flash fire protection (certified as compliant with NFPA 1991 with flash fire protection option).	47, 48, 133, 138, 154, 168
VF - NFPA 1991 Ensembles with Optional Flash Fire Protection 03 Suggested Support Items			
01VF-03-ITST	Equipment, Inflation Testing	Inflation testing equipment specific to Item 01VF-01-ENSM.	47, 48, 85, 133, 168
01VF-03-TRST	Suit, Training	Training suit based on similar design, but different materials than Item 01VF-01-ENSM.	47, 48, 133, 168
VT - NFPA 1991 Ensembles 01 Ensemble			
01VT-01-ENSM	Ensemble, Vapor-Protective, NFPA 1991	Vapor-protective ensemble, including totally encapsulating suit with attached or separate gloves and footwear or booties with outer boots (certified as compliant with NFPA 1991).	47, 48, 133, 138, 154, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
VT - NFPA 1991 Ensembles 02 Required Ensemble Elements			
01VT-02-FTWR	Footwear, Vapor-Protective, NFPA 1991	Vapor-protective footwear (certified as compliant with NFPA 1991).	47, 48, 133, 138, 154, 168
01VT-02-GARM	Garment, Vapor-Protective, NFPA 1991	Vapor-protective garment (certified as compliant with NFPA 1991).	47, 48, 133, 138, 154, 168
01VT-02-GLOV	Gloves, Vapor-Protective, NFPA 1991	Vapor-protective gloves (certified as compliant with NFPA 1991).	47, 48, 133, 138, 154, 168
VT - NFPA 1991 Ensembles 03 Suggested Support Items			
01VT-03-ITST	Equipment, Inflation Testing	Inflation testing equipment specific to Item 01VT-01-ENSM.	47, 48, 85, 133, 168
01VT-03-TRST	Suit, Training	Training suit based on similar design, but different materials than Item 01VT-01-ENSM.	47, 48, 133, 168
WA - Water Operations PPE 01 Equipment, Breathing - SCUBA			
01WA-01-BKUP*	System, Water Operations, Emergency Backup Air Supply	Self-contained regulator and small supply tank to provide redundant emergency breathing air supply. Designed to aid emergency egress for dive and swift water operations. Also used for crew members in over-water helicopter operations.	135
01WA-01-SCBA	Apparatus, Self-Contained Underwater Breathing (SCUBA)	SCUBA, including tanks and primary/secondary regulator.	135

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
WA - Water Operations PPE 01 Equipment, Breathing - SCUBA - *Continued*			
01WA-01-SCBC*	Apparatus, Self-Contained Underwater Breathing (SCUBA), Contaminated Water Diving	SCUBA for use in contaminated water diving, including tanks and integrated facepiece/regulator.	47, 55, 135
WA - Water Operations PPE 02 Equipment, Breathing - Surface Supplied			
01WA-02-HLMT	Helmet, Surface Supplied Air, Diving	Diving helmet used with surface supplied air systems.	135
01WA-02-SAIR	System, Surface Supplied Air, Diving	Diving system which utilizes supplied air from the surface via an umbilical hose.	135
WA - Water Operations PPE 03 Garments and Ensembles, Diving			
01WA-03-BOOT	Boots, Diving	Boots for use as part of diving ensemble, usually in surface supplied air operation.	135
01WA-03-GLOV	Gloves, Diving	Gloves for use in diving operations.	135
01WA-03-HOOD	Hood, Diving	Diving hood for wetsuit/dry suit operations.	135
01WA-03-NDAM	Dam, Neck, Diving	Neck dam for use with diving ensemble.	135
01WA-03-SUTD	Suit, Dry, Diving	Dry suit for diving operations.	135
01WA-03-SUTW	Suit, Wet, Diving	Wet suit for diving operations.	135
01WA-03-UNDR	Undergarment, Dry Suit, Diving	Undergarment for use with dry suit in diving operations, including contaminated water diving.	135
WA - Water Operations PPE 05 Garments and Ensembles, Contaminated Water Operations			
01WA-05-BTES	Boots or Booties, Diving, Contaminated Water	Protective boots or booties worn with ensemble for use in contaminated water diving operations. Designed to be worn with swim fins.	47, 55, 135

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
WA - Water Operations PPE 05 Garments and Ensembles, Contaminated Water Operations - *Continued*			
01WA-05-FINS	Fins, Diving, Contaminated Water	Diving fins worn with ensemble for use in contaminated water diving operations.	47, 55, 135
01WA-05-GLOV	Gloves or Mittens, Dry Suit, Diving, Contaminated Water	Gloves or mittens worn with ensemble for use in contaminated water diving operations.	47, 55, 135
01WA-05-SUTD	Suit, Diving, Dry, Protective, Contaminated Water	Protective dry suit for use in contaminated water diving operations.	47, 55, 135
01WA-05-TTHR	Tether, Diving, Contaminated Water Operations	Tether for use in contaminated water diving operations.	47, 55, 135
WA - Water Operations PPE 06 Ancillary Equipment			
01WA-06-BAGG*	Bag, Gear, Water Operations	Water operations gear bag constructed with mesh or solid materials to transport and store water operations equipment, both wet and dry.	
01WA-06-BCMP	Compensators, Buoyancy, Diving	Buoyancy compensators for diving operations.	135
01WA-06-CLIM	System, Diving, Climate Control	System for providing heat to divers in cold/deep water diving operations.	135
01WA-06-FINS	Fins, Swimming/Diving	Footwear that increases agility and speed during water operations by increasing mechanical advantages.	135
01WA-06-HRNS	Harness, Diving	Harness for diving operations.	
01WA-06-MAIN*	Kits, Maintenance /Field Repair, Underwater Equipment	Kits for field maintenance of water operations equipment.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

Item Number	Title	Description	Standards[1]
WA - Water Operations PPE *06 Ancillary Equipment - Continued*			
01WA-06-MASK	Mask, Diving	Mask for use with diving ensemble.	
01WA-06-PFDS*	Device, Personal Flotation	Wearable personal flotation device (PFD) to be utilized by shore or vessel-based operational personnel or personnel operating in non-moving water. PFDs must be approved by the U.S. Coast Guard. Includes common accessories such as attached pealess whistle and signaling devices/lights.	135
01WA-06-SNRK	Snorkel, Diving	A breathing device used by divers and swimmers consisting of a long tube held in the mouth through which the user breathes surface air.	
01WA-06-WGHT	Weights, Diving	Weights for creating negative to neutral buoyancy to allow for work in a water environment. Includes weight belts and ankle weights.	
WF - NFPA 1977 - Wildland Fire Fighting Clothing and Equipment *01 Clothing Items*			
01WF-01-BOOT	Footwear, Wildland Fire Fighting Protective	Items of protective clothing that provide protection to the foot, ankle, and lower leg (certified as compliant with NFPA 1977).	48, 138, 149, 168
01WF-01-COLD*	Outerwear, Cold Weather, Wildland Fire Fighting Protective	Items of protective clothing that provides protection to the upper or lower torso, arms, and legs to provide insulation for warmth of the wearer during cold weather (certified as compliant with NFPA 1977).	48, 138, 149, 168
01WF-01-GARM	Garment, Wildland Fire Fighting Protective	Items of protective clothing that provide protection to the wearer's upper or lower torso, excluding the hands, face, and feet. Includes one-piece and multi-piece garments, as well as shirts, trousers, and jackets as defined in NFPA 1977 (certified as compliant with NFPA 1977).	48, 138, 149, 168
01WF-01-GLOV	Gloves, Wildland Fire Fighting Protective	Items of protective clothing that provide protection to the hands and wrists (certified as compliant with NFPA 1977).	48, 138, 149, 168
01WF-01-GOGL	Goggles, Wildland Fire Fighting Protective	Items of protective equipment that provide protection to the eyes and a portion of the face (certified as compliant with NFPA 1977).	48, 70, 138, 149, 168
01WF-01-HLMT	Helmet, Wildland Fire Fighting Protective	Items of protective equipment that provide protection to the head (certified as compliant with NFPA 1977).	48, 71, 138, 149, 168

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
WF - NFPA 1977 - Wildland Fire Fighting Clothing and Equipment 01 Clothing Items - *Continued*			
01WF-01-SHRD	Shroud, Face/Neck, Wildland Fire Fighting Protective	Items of protective clothing that provide protection to the face and neck area (certified as compliant with NFPA 1977).	48, 138, 149, 168
WF - NFPA 1977 - Wildland Fire Fighting Clothing and Equipment 02 Other Items			
01WF-02-CSAW	Protector, Chain Saw, Wildland Fire Fighting	Items of protective equipment worn while operating chain saws, that provide protection to the legs, or to the lower torso and legs, excluding the ankles and feet (certified as compliant with NFPA 1977).	48, 89, 149, 168
01WF-02-LOAD*	Equipment, Load Carrying, Wildland Fire Fighting	Items of protective equipment that are worn by the wildland fire fighter to facilitate the carrying of gear (certified as compliant with NFPA 1977).	48, 149, 168
ZA - PPE Accessories 01 Personal Monitoring			
01ZA-01-PASS	System, Personal Alert Safety (PASS)	PASS Device - personal alert safety system (certified as compliant with NFPA 1982).	47, 50, 133, 138, 143, 151
01ZA-01-PPMS*	System, Personnel Physiological Monitoring	System consisting of sensors, individual transmitters, receivers, and display platform that enables remote monitoring of multiple individuals' key physiological indicators such as heart rate, respiratory rate, skin temperature, body posture (vertical, prone) and activity (stationary, walking, running). Includes built-in alerts and alarms to assess each operator's physiological status (through red/orange/green indicators), provide life sign detection and predict fatigue and heat strain.	
ZA - PPE Accessories 02 Gloves & Footwear			
01ZA-02-FTWC*	Covers, Outer Footwear, Non-CBRNE	Disposable outer footwear covers for contamination hazard protection (no standard currently applies for this item - for certified medical footwear covers, see Item 01EM-04-FTWC).	48

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
ZA - PPE Accessories 02 Gloves & Footwear - *Continued*			
01ZA-02-GLVA	Gloves, Protective, Abrasion/Puncture-Resistant	Abrasion/puncture-resistant gloves provide protection to the fingers and hands from sharp implements, needle sticks, and abrasive surfaces while providing the wearer with the necessary dexterity to fulfill mission requirements (certified as compliant with ANSI/ISEA 105).	48, 52, 74
01ZA-02-GLVD	Gloves, Outer, Disposable	Outer disposable gloves for contamination protection (certified as compliant with ANSI/ISEA 105).	48, 52, 74
01ZA-02-GLVF	Gloves, Protective, Flame-resistant	Flame-resistant gloves that provide the wearer's fingers, hands, and wrists with protection from flash fires and short duration exposure to high heat, while still providing the wearer with sufficient dexterity to meet mission requirements (certified as compliant with ANSI/ISEA 105).	48, 52, 74
01ZA-02-GLVI	Gloves, Inner, Cotton	Inner cotton gloves (no standard currently applies for this item).	48, 52
01ZA-02-GLVW	Gloves, Outer, Work	Outer work gloves for physical hazard protection (certified as compliant with ANSI/ISEA 105).	48, 52, 74
ZA - PPE Accessories 03 Eye Protection			
01ZA-03-EYEP	Protection, Eye	Eye protection for field operations, including polarized sun protection for water operations.	49, 70
ZA - PPE Accessories 04 Hearing Protection			
01ZA-04-HEAR	Protection, Hearing	Hearing protection for operations in potentially high noise environments.	46
ZA - PPE Accessories 05 Undergarments			
01ZA-05-UNDR	Undergarment, Non-Flame-Resistant	Non-flame-resistant undergarment for comfort and for contamination control during doffing (no standard currently applies for this item).	48
01ZA-05-UNFR	Undergarment, Flame-Resistant	Flame-resistant undergarment (certified as compliant with NFPA 2112 or the flame-resistant option of NFPA 1975).	48, 138, 148, 158

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 1 – PERSONAL PROTECTIVE EQUIPMENT

Item Number	Title	Description	Standards[1]
ZA - PPE Accessories 06 Other Accessories			
01ZA-06-HHAT	Hardhat	Hardhat (certified as compliant to ANSI Z89.1).	48, 51, 71
01ZA-06-HYDR	Hydration System, Personal	Personal hydration system.	
01ZA-06-PRPD	Padding, Protective	General protective pads to provide protection for elbows, knees, neck, and shins while conducting operations, including rescue operations.	
01ZA-06-VEST*	Vest or Outer Garment, High-visibility	High-visibility vest or outer garment (certified as compliant with either ANSI/ISEA 107 or ANSI/ISEA 207).	75, 76
ZP - Ancillary Equipment 00 Miscellaneous			
01ZP-00-GBAG	Bag/Box, Ensemble Gear Storage	Ensemble gear storage bag or box (no standard currently applies for this item).	
01ZP-00-STOL	Stool/Table, Portable or Foldable	Backless stool or table for use in donning/doffing protective equipment/garments.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 2 – EXPLOSIVE DEVICE MITIGATION AND REMEDIATION EQUIPMENT

Overview

The IAB continues its close collaboration with the National Bomb Squad Commanders Advisory Board (NBSCAB) in identifying essential equipment and advising that the purchase of such equipment be limited to Accredited Bomb Squads. The use of a separate major section of the SEL (and the DHS Authorized Equipment List) for this equipment underscores the criticality of bomb squad operations and the seriousness of the threat from Improvised Explosive Devices (IEDs) as both primary and secondary devices.

Section Changes for 2010

Most of the changes in this edition are clarifications to ensure that SEL users understand the scope of the item. For example, the definition of Containment Vessel upgrades was expanded to include several specific upgrade examples. The SubGroup is proposing the change to FEMA and, if it is incorporated into the AEL, grant applicants will have less difficulty demonstrating that they meet the intent of the item.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
9	1	0

New Items:

02EX-03-ELCM   Equipment, Electronic Countermeasures

SECTION 2 – EXPLOSIVE DEVICE MITIGATION AND REMEDIATION EQUIPMENT

Item Number	Title	Description	Standards[1]
EX - Equipment 00 General			
02EX-00-EXEN	Equipment, Explosive Entry	Explosive entry equipment, upgrades. Used for explosive tactical entries (breaching).	
02EX-00-EXMP	Magazines, Portable or Transportable, Explosive	Portable or transportable magazines for short- or long-term storage and transport of explosive materials, possible IEDs, or other suspected CBRNE devices to and from incident scene. Includes any movable magazines, including those requiring crane lift/placement.	127, 128
02EX-00-KTFO	Kit, Fiber Optic	Fiber optic kit (inspection or viewing).	141
02EX-00-MITA	Mitigation Area, Explosive	Explosive/bomb mitigation areas, explosive training, upgrades, including portable explosive/ burn containment vessels or shielding.	127, 128
02EX-00-PBIE*	Equipment, Post Blast Investigation	Equipment for post-blast investigation, explosives/Improvised Explosive Device (IED) investigation tools, portable and hand held metal detectors (HHMD), evidence processing equipment, scene preservation equipment, upgrades. Note: support equipment for post-blast investigation is available in other sections such as Scene Control (03OE-03), Power (10), and CBRNE Logistical Support Equipment (19).	127, 128
02EX-00-TCVV*	Vessel, Containment	Containment vessels (including vented, total containment (TCV), and transport), for containment, transportation, and temporary storage of explosives, Improvised Explosive Devices (IEDs), Home Made Explosives (HMEs), ammunition, suspicious packages, or other CBRNE devices. May be used for destruction of explosives, ammunition, HMEs or IEDs. Also includes trailer for transporting vessel.	127, 128
02EX-00-TCVW*	Upgrades, Containment Vessel	Upgrades for containment vessels, including but not limited to ramps, integral CBRNE detectors, CBRNE evidence sampling capability, venting upgrades, inspection cameras/ equipment, automated door actuators, ammunition burners with filter capability, and integrated power backup such as generators or solar panels	127, 128
EX - Equipment 01 X-Ray Equipment			
02EX-01-XRAP*	X-Ray Equipment, Portable or Transportable	Portable or transportable X-ray unit/equipment (including backscatter X-ray systems), related attachments, equipment, film, image screens, computers for image storing/ transmission, upgrades.	127, 128, 167

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

Item Number	Title	Description	Standards[1]
EX - Equipment 02 Tools			
02EX-02-RBTL*	Attachments/Tools, Robot	Attachments and tools for use with robot platform (see 03OE-07-ROBT) in explosive detection, mitigation and remediation, as well as detection of other CBRN substances. Includes robot-mounted tools for vehicle/container stabilization and access via opening/disassembly/ cutting. Note that some disabling and remote opening tools are also adaptable for robot-mounted use (see 02EX-02-TLPB and 02EX-02-TLRO).	127, 128
02EX-02-TLEX	Tools, Explosive Mitigation, Suppression, Deflection	Tools for Improvised Explosive Device (IED) remediation, such as boot bangers, shape charges, mineral water bottles (MWBs), explosive/CBRN mitigation tents, bomb blankets, blast suppression shields. (Note that actual explosives such as shape charges and the explosives used to activate boot bangers/MWBs will not be allowable under DHS grant programs).	127, 128
02EX-02-TLPB*	Tools, Bomb Disabling	Disabling/cutting tools, disrupters, disrupter projectiles, attachments, and operational equipment for disabling Improvised Explosive Devices (IEDs), including Vehicle-Borne, Person-Borne, and Radio-Controlled IEDs. May be adaptable for use on robot platform.	127, 128
02EX-02-TLRO*	Tools, Remote Opening, Examination, Handling	Remote opening tools such as rigging kits, pulleys, clamps, poles, probes, mirrors, electric/pneumatic hand tools, stethoscope, IED handling tools, non-sparking tools, etc. May be adaptable for use on robot platform.	127, 128
EX - Equipment 03 Electronic Countermeasures			
02EX-03-ELCM*	Equipment, Electronic Countermeasures	Mobile and portable electronic countermeasures systems for use against radio-controlled IEDs. Includes related attachments and equipment, and upgrades.	127, 128
PE - Protective Ensembles 01 Ensembles			
02PE-01-BSUT*	Suit, Improvised Explosive Device/ Explosive Ordnance Disposal (IED/EOD) Protective Ensemble	Protective ensemble designed to provide protection from detonation, including fragmentation, blast overpressure, impact, and thermal effects. The ensemble must be designated by the manufacturer as a full coverage bomb suit.	50, 127, 128, 183

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 2 – EXPLOSIVE DEVICE MITIGATION AND REMEDIATION EQUIPMENT

Item Number	Title	Description	Standards[1]
PE - Protective Ensembles 01 Ensembles - *Continued*			
02PE-01-RCON	Ensemble, Reconnaissance, Improvised Explosive Device/Explosive Ordnance Disposal (IED/EOD)	IED/EOD protective ensemble intended to protect the head and torso from explosive fragmentation and flame. Includes ballistic helmet, ballistic face shield, and ballistic vest.	127, 128, 161, 164, 165
02PE-01-SRCH*	Suit, "Search", Improvised Explosive Device/ Explosive Ordnance Disposal (IED/EOD) Protective Ensemble	Protective ensemble designed to provide protection from detonation (including fragmentation, blast overpressure, impact, and thermal effects) that is also compatible with or integral with one or more protective ensembles certified to the Class 3 or Class 4 requirements of NFPA 1994. The suit may or may not be designated by the manufacturer as a full coverage bomb suit. This ensemble includes appropriate respiratory protection. Note that any bomb suit components integral to an NFPA 1994 ensemble are required to have been tested and third-party certified to the NFPA 1994 requirements as part of the ensemble.	127, 128, 161, 164, 165
PE - Protective Ensembles 02 Elements			
02PE-02-BOOT	Boot, IED/EOD	Heavy-duty, non static-producing footwear for use with IED/EOD ensembles.	
02PE-02-CLTH	Clothing, Operational, and Specialized/ Protective Gear IED/EOD	IED/EOD protective outer clothing used in conjunction with recon ensemble (02PE-01-RCON) or in lieu of full protective ensemble for known minimum threat situation.	183
02PE-02-COOL	Garment/Vest/Device, Cooling	Cooling garment, vest, or device (no performance standard currently applies for this item).	48, 92
02PE-02-HAND	Equipment, Hand Protection, IED/EOD	Hand protection component to IED/EOD protective ensemble system; protective gloves and ballistic hand covers.	
02PE-02-HEAR	Protection, Ear, Blast and Overpressure Threat	Molded ear plugs or other device to be worn under the ballistic protective helmet.	
02PE-02-HLMT	Equipment, Head and Face Protection, IED/EOD	Helmet Protective System Component of IED/EOD Protective Ensembles. Includes ballistic helmet and face shield compatible with bomb suit or search suit. Includes face shields with vision correction capability (using either a prescription shield or overlay).	128, 183

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

Overview

This section contains equipment needed to initiate and sustain operations during operational and search and rescue response incidents. One of the FY2011 SEL priorities is the expansion of law enforcement equipment, which will impact the structure and content of this section.

Section Changes for 2010

The first change made in this section for the 2010 edition was removing "CBRNE" from the title. This change reflects the fact that, while the SEL maintains a special emphasis on WMD incidents, the list has expanded to reflect an all-hazards approach. In fact, the majority of the items in this section have applicability in both WMD and non-WMD incidents.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
8	2	0

New Items:

03OE-03-DAMS   Devices, Flood Containment/Diversion

03OE-03-RADB   Blanket, Radiation Mitigation

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

Item Number	Title	Description	Standards[1]
OE - Operational Equipment 01 Law Enforcement			
03OE-01-CTAC	Device, Tactical Communications	Specialized communications devices for point to point communications in tactical situations where improvised individual communication is required. Includes audio and/or video devices such wired, wireless, and sound-powered throw phones and throw cameras .	
03OE-01-LINE*	Line, Linen, Fast Rope	Linen line used for vertical personnel insertion (fast rope) in tactical environments.	
03OE-01-LLMN	Equipment, Less Than Lethal Mitigation	Less than lethal mitigation equipment for use in tactical law enforcement operations conducted in critical locations.	
03OE-01-SPRS	Suppressors, Flash/Noise, Tactical	Suppression devices that, when attached to a delivery system, reduce or eliminate flash or noise during discharge.	
03OE-01-SSYS	System, Sighting Enhancement, CBRNE PPE Compatible	Includes systems such as laser "red dot" sights, infrared, holographic and flat screen displays, and other systems designed to allow sighting/aiming of weapons or less than lethal delivery systems in a CBRNE environment requiring PPE. Also includes mounting hardware and accessories such as rails, risers, etc.	
03OE-01-VSTO	Vests, Operational	Operational vests; duty gear and modular load bearing systems.	
OE - Operational Equipment 02 Optics			
03OE-02-BNOC	Binoculars/Scopes	Optical systems that permit remote observation during field operations.	
03OE-02-FIBR	Systems, Fiber Optic	Fiber optic systems that permit remote observation during field operations.	141
03OE-02-LASR	Range Finder, Laser	A distance-measuring device capable of instantaneously measuring distance to target with accuracy of +/- one yard/meter.	
03OE-02-SCOP	Spotting Scopes/Surveillance Telescopes	Optics capable of use in long-range, sometimes long-term, observation of tactical, structural stability, or rescue operations.	141
03OE-02-TILA	Optics, Thermal Imaging and/or Light Amplification	Thermal imaging and/or light amplification optics, including night vision equipment and Forward Looking Infrared (FLIR) for search operations involving trapped or lost victims or tactical operations.	131

Item Number	Title	Description	Standards[1]
OE - Operational Equipment 03 Scene Control			
03OE-03-CACS*	System, Capture and Containment	Capture and containment system for hazardous material spills (land-based or marine) such as collars and booms.	133
03OE-03-DAMS*	Devices, Flood Containment/Diversion	Temporary devices deployable by responders that create barriers to flood waters, including modular walls, cofferdams, and inflatables.	
03OE-03-GLRL*	System, Marking, Green Line/Red Line	Marking system, Green Line/Red Line, battery activated or appropriate substitute.	
03OE-03-KTCL	Kit, Chemical Leak Control	Chemical leak control kit.	133
03OE-03-KTFA	Kit, First Aid, Trauma Type	Trauma type first aid kit, including bulk dressings and bandages, splints, occlusive dressings and associated supplies for treating trauma patients in a field environment.	86
03OE-03-LOTO	System, Lock Out/Tag Out	Lock Out/Tag Out system to secure, control, or block mechanical, electrical, hydraulic, or pneumatic systems or components to ensure protection of personnel.	54
03OE-03-LTPA	Lighting, Portable Area Illumination	Portable area illumination for work areas, rescue sites, and staging areas during night operations or in areas with insufficient ambient light.	131
03OE-03-MEGA	System, Public Address, Handheld or Mobile	Systems for mass audio notification, including vehicle-mounted high powered speaker systems, or battery powered megaphone / public address systems with corded microphone.	
03OE-03-RADB*	Blanket, Radiation Mitigation	Blanket using lead lining or specialized material with comparable capability to attenuate high-energy Beta radiation, Gamma radiation, and X-rays.	
03OE-03-SIGN	Signs	Restricted access and caution warning signs, preprinted or field printable, various colors, sizes, and shapes. Includes traffic cones and other free-standing signage, as well as mountable items.	
03OE-03-TIMR	Timer	Timer or stopwatch used for monitoring rescuer time on cylinder, entry time/duration, or any other operation requiring accurate time documentation.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

Item Number	Title	Description	Standards[1]
OE - Operational Equipment 04 Safety Equipment			
03OE-04-BALA	Balaclava, Fire Resistant	Fire resistant/retardant hood that affords head protection in the event of flash fire.	48, 147, 158
03OE-04-CRNT	Detectors, Current	Equipment for detecting and/or measuring AC or DC current. Includes non-contact detectors for use in finding "live wiring" in walls or collapsed structures.	
03OE-04-EXAC	Extinguisher, Fire, Class ABC	Class ABC fire extinguisher, multi-purpose, handheld, 20 lb capacity.	129
03OE-04-EXDD	Extinguisher, Fire, Class D	Portable Class D Fire extinguisher.	129
03OE-04-GRCA	Cables, Grounding	Grounding cables, point-type clamps on both ends; 1/8" stainless steel (uninsulated) 50' minimum.	130, 131, 133
03OE-04-GRRD	Rod, Copper Grounding	Copper grounding rod, 3/4" x 6' (minimum length) with slide hammer or driver for demolition hammer.	130, 131, 133
03OE-04-GRRT	Tester, Ground Resistance	Ground resistance tester.	131, 133
03OE-04-HSMN	Monitor, Heat Stress	Heat stress monitor (ambient and personal).	138
03OE-04-KTTL	Kit, Tool, Miscellaneous, Non-sparking	Non-sparking tool kit, to include bung and spanner wrenches and tool box.	133
03OE-04-LTHE	Light, Personal, Intrinsically Safe	Compact, hand-held lights or lights mounted on helmets or equipment, or otherwise worn by the user for use in tactical operations and in potentially flammable atmospheres. Includes high-intensity lights as well as light sticks.	131
03OE-04-LTHH	Light, Hand-Held or Helmet-Mounted Illumination	Hand-held lights or lights mounted on helmets or otherwise worn by the user for use in non-flammable or non-explosive atmospheres.	
03OE-04-MMTR	Multi-Meter, Electrical	Intrinsically safe electrical multi-meter, or VOM (Volt Ohm Meter).	131

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

[*] Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

Item Number	Title	Description	Standards[1]
OE - Operational Equipment 05 Rope Safety			
03OE-05-HARN	Harnesses, Life Safety/ Rappelling	Body harnesses used to support a person during rappelling or rope rescue operations (certified as compliant with NFPA 1983).	141, 152
03OE-05-ROPE	Rope, Life Safety	Rope of various diameters, lengths, and ratings used specifically for human rescue, egress, hoist, or transport (certified as compliant with NFPA 1983).	141, 152
03OE-05-ROPH	Hardware, Rappelling or Rescue Operations, Life Safety	Rappelling/rescue hardware, including ascenders, descenders, friction devices, hand rope grabs, carabiners, plates, racks, etc. (if covered, certified as compliant with NFPA 1983).	141, 152
03OE-05-ROPS	Software, Rope, Life Safety	Includes items such as: Prusik cords, softrope grabs, bags, webbing, rope protection (certified as compliant with NFPA 1983).	141, 152
OE - Operational Equipment 07 Robots and Remotely Operated Vehicles			
03OE-07-ROBT	Robots	Robotic platforms to support various mission areas such as explosive device remediation, hazardous materials operations, tactical law enforcement operations, search & rescue, and surveillance/detection.	82, 83
03OE-07-RPVS	Vehicles, Remotely Piloted	Remotely piloted vehicles to support various mission areas such as explosive device remediation, hazardous materials operations, tactical law enforcement operations, search & rescue, and surveillance/detection. Examples include unmanned aerial vehicles (fixed or rotary-wing), submersible vehicles, and remotely-controlled ground vehicles.	
03OE-07-UPGD	Upgrades, Robots or Remotely Piloted Vehicles	Upgrades or accessories to basic robot or RPV platforms, including software upgrades, battery/engine upgrades, arms, drive systems, range extenders, trailers, etc. Mission specific upgrades such as detectors and disrupters are detailed in other sections such as Explosive Tools, Search & Rescue, and Detection.	82, 83
SR - Search & Rescue Equipment 01 Pneumatic Equipment			
03SR-01-ABAG	Airbag, Lifting, Low or High Pressure	Low or high pressure airbag lifting systems, bags, regulators, hoses, controllers, accessories and attachments for lifting heavy objects to extricate trapped victims.	133, 141

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

[*] *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

Item Number	Title	Description	Standards[1]
SR - Search & Rescue Equipment 01 Pneumatic Equipment - *Continued*			
03SR-01-COMP	Compressor, Industrial Air	Working air compressor, storage systems, accessories and attachments for powering pneumatic tools, systems and equipment. NOT to be utilized for compression of breathing air or supplying breathing air systems.	131, 141
03SR-01-SHOR	Equipment/System, Shoring	Expandable shoring and raker systems, regulators, controllers, hoses, accessories and attachments for stabilization of unstable loads or structures.	53, 56, 141
03SR-01-TLPN	Tools, Hand, Pneumatic	Pneumatic-powered hand tools, accessories and attachments for cutting, breaking, drilling or chiseling wood, steel, concrete and other materials. Includes tools for applying or removing fasteners.	53, 56, 141
SR - Search & Rescue Equipment 02 Tools			
03SR-02-MARK*	Tools, Structural Assessment, Marking and Monitoring	Tools, equipment, accessories and attachments for assessing, marking and monitoring damaged structures and their stability.	53, 141
03SR-02-SPRY	Sprayers, Handheld and Backpack	Handheld and backpack spray tanks/bladders and attachments, air pressure or manual pump operated.	
03SR-02-TLHN	Tools, Hand	Manually operated hand tools, cutting torches, exothermic torches, accessories and attachments for cutting, prying, breaking, shoring, stabilizing, moving, applying or removing fasteners where powered tools are not appropriate or safe to use.	141
03SR-02-TPEL	Tools, Power, Electric	Electrically-powered portable saws, cutters, breakers, drills, pumps, accessories and attachments. (Certified as compliant with NFPA 1936).	141, 144
03SR-02-TPGS	Tools, Gasoline-Powered	Internal combustion engine, gasoline-powered portable cutting saws, drills, breakers, coring tools, accessories and attachments for rescue operations. (Certified as compliant with NFPA 1936).	141, 144
03SR-02-TPHY	Tools, Power, Hydraulic	Portable hydraulically-operated tools and power units, hoses, accessories and attachments for rescue operations. Internal combustion, electric power unit, or manual power unit. (Certified as compliant with NFPA 1936).	141, 144

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

Item Number	Title	Description	Standards[1]
SR - Search & Rescue Equipment 02 Tools – *Continued*			
03SR-02-TRIG	Tools, Heavy Rigging	Slings, shackles, wire ropes, chains, swivel plates, anchors, hoists and accessories for lifting and moving large objects with cranes or other heavy equipment.	141
SR - Search & Rescue Equipment 03 Search Equipment			
03SR-03-KMON	Kits, Confined Space Air Monitoring	Kits (including monitor, sampling hose, filters, pumps, and accessories) that monitor the atmosphere in confined spaces to detect hazardous environments.	53, 131, 133, 141, 186
03SR-03-LSTN	System, Listening	Seismic and acoustic listening devices and accessories for locating trapped and entombed victims not detectable by other means.	53, 141
03SR-03-SCAM	Camera, Search	Void area video search camera and accessories for inspecting voids and confined spaces with limited physical access.	53, 141
03SR-03-TPBM	Tape, Boundary Marking	Boundary marking tape: YELLOW Caution/RED Danger/ Incident specific (i.e., radiological, biological, chemical).	
SR - Search & Rescue Equipment 04 Canines			
03SR-04-DOGS	Canines, Search & Rescue	Search & rescue canines, related CBRNE training, protective equipment/garments, and handling accessories.	141
SR - Search & Rescue Equipment 05 Robotic Equipment			
03SR-05-RBTL	Attachments/Tools, Search & Rescue Robot or Remotely Piloted Vehicle	Attachments/tools for specialized search & rescue capability such as mountable cameras (including infrared), remote manipulators, listening devices, etc. Includes repeater devices for extended remote operations.	141
WA - Water Operational & Search/Rescue Equipment 01 Water Operational Equipment			
03WA-01-ALRT	Device, Alerting, Water Operations	Plastic, non-corrosive, pealess whistles.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

WA - Water Operational & Search/Rescue Equipment
01 Water Operational Equipment - Continued

Item Number	Title	Description	Standards[1]
03WA-01-BAGB	Bag, Body, Underwater	Body bags for recovery operations of bodies and body parts underwater; these bags require holes for drainage as the bag is removed from the water/liquid.	141
03WA-01-BAGL*	Bag, Lift	Bag capable of holding and lifting objects to the surface. Must be durable and capable of being hooked to a lifting device.	141
03WA-01-DCMP	Computer/Gauge, Dive	Dive computers should have at a minimum the following functions: air pressure, depth gauge, time remaining, ascent rate, decompression stops. The computer should be constructed to be durable and easy to read and understand.	141
03WA-01-DNIF*	Knives, Punches, and Cutting Shears, Diving	Knives and other cutting and punching tools for underwater use.	141
03WA-01-KFAD	Kit, Medical First Aid, Dive Specific	First aid kit for dive operations.	86, 141
03WA-01-LADD*	Ladder, Diving	Method of ingress and egress from water onto vessel. Should be durable construction of non-corrosive materials.	141
03WA-01-LINE	Line, Work, Water Operations	Line for use in all water operations.	141
03WA-01-LOGD	Log, Dive	Book for logging dives, dive times and locations.	141
03WA-01-MARK	Device, Marking, Marine	Location marking devices for marine use, including diver-down flags and Alpha flags. Includes anchoring mechanism such as magnetic attachment device or grappling hook.	141
03WA-01-PROP	System, Personal Propulsion	Device to assist diver mobility in the water and conserve diver energy.	141
03WA-01-UCUT	Cutting/Welding Equipment, Underwater	Torches and other equipment used for cutting or welding underwater. Includes both mechanical cutting tools and thermal cutting/welding tools.	141
03WA-01-ULHH*	Lights, Underwater, Personal	Waterproof, handheld or attached lights designed for individual underwater use.	141

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 3 – OPERATIONAL AND SEARCH & RESCUE EQUIPMENT

Item Number	Title	Description	Standards[1]
WA - Water Operational & Search/Rescue Equipment 01 Water Operational Equipment - Continued			
03WA-01-ULIT	Lights, Underwater, not Handheld	Waterproof lights designed for underwater use to provide fixed-site illumination.	141
03WA-01-UNAV	Equipment, Navigation, Underwater	Navigation board for use by divers.	141
03WA-01-USLD	Sled, Towing, Underwater	Sled or other device capable of carrying a body, equipment, or evidence underwater. Can be towed by a diver or moved via an attached underwater conveyance line.	141
03WA-01-UWMD	Detector, Metal, Underwater	Metal detector adapted for or designed for use underwater.	141
03WA-01-UWRT	Slates/Writing Materials, Underwater	A plastic slate with an attached marker capable of being used while completely submerged.	141
03WA-01-WACC	Housings and Accessories, Underwater/ Waterproof	Materials designed to protect equipment such as cameras, sensors, etc. from water penetration during water operations.	141
WA - Water Operational & Search/Rescue Equipment 02 Water Search & Rescue Equipment			
03WA-02-BAGT	Bag, Throw	Rescue device consisting of line in a lightweight bag which can be deployed by securing one end of the line and throwing the entire bag at the target.	141
03WA-02-BORD	Boards/Sleds, Search and Rescue	Specialized, rapidly deployable craft for water/ice rescue operations, such as river rescue boards, ice rescue sleds, etc. Does not include boats, which are covered separately in Section 17.	141
03WA-02-SONR	Sonar, Imaging	Underwater imaging device utilizing sound waves to assist in search and rescue operations.	141

SECTION 4 – INFORMATION TECHNOLOGY

Overview

This section lists equipment, software, and systems that provide information functionality and interoperability between local responders and other agencies working in cooperation to resolve or manage incidents. The items in this section serve to develop situational awareness and better coordinate response operations for CBRNE terrorism as well as 'all-hazard' homeland security operations.

Like previous editions, the 2010 SEL has divided information technology, cyber security and communications into three distinct sections (Sections 4, 5, and 6 respectively). While there continues to be a close connection among the three (and even some merging of technologies such as voice communications over the Internet and encryption of data), the separation of sections should make it easier to locate desired items. We have continued our efforts to provide information on desirable features, operating limitations, and standards (where applicable). The information provided is by no means exclusive. These fields are designed to enhance the reader's understanding of the defined items and their practical use.

Section Changes for 2010

Changes to this section reflect advances in technology such as faster computer speeds, higher memory capacities, etc. In some cases, rather than add new items, the definitions of existing items have been expanded to incorporate emerging technologies, such as the latest generation of tablet/pad devices.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
28	0	0

SECTION 4 – INFORMATION TECHNOLOGY

Item Number	Title	Description	Standards[1]
AP - Application Systems and Software 01 Computer Aided Dispatch			
04AP-01-CADS	System, Dispatch, Computer Aided	Computer software system(s) used to track and manage public safety incidents and resources.	136
AP - Application Systems and Software 02 Position Locating Systems			
04AP-02-AVLS*	Systems, Automatic Vehicle Locating (AVL)	Automatic Vehicle Locating (AVL) Systems.	
04AP-02-DGPS	Device, Global Positioning System (GPS)	Global Positioning System (GPS) receiving device, including self-contained handhelds, mobile mounted systems, and accessory devices to enable computers and communications devices.	
04AP-02-OAPT	System, Operations Area Personnel Tracking and Accountability	Personnel tracking and accountability systems for use in an operations area, including both administrative tracking systems and precision locating and tracking systems.	
AP - Application Systems and Software 03 Geographical Information Systems (GIS)			
04AP-03-GISD	Data, Geospatial	Data related to positions on the Earth's surface in the form of databases, maps, satellite and other remote-sensing imagery. For use with Geospatial Information Systems (Item 04AP-04-GISS).	
04AP-03-GISS*	System, Geospatial Information (GIS)	Geospatial/Geographical Information Systems (GIS), including application software as well as integrated hardware for implementation. GIS systems support the acquisition, integration and dissemination of geospatial data and imagery. GIS systems provide or support multiple CBRNE terrorism prevention and response functions, including (but not limited to): • Geospatial Analysis - allows for association of intelligence and location-based information to perform complex analysis and visualization • Decision Support - provides a mechanism to deliver actionable intelligence, supporting strategic and tactical operations	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 4 – INFORMATION TECHNOLOGY

Item Number	Title	Description	Standards[1]
AP - Application Systems and Software 03 Geographical Information Systems (GIS) - *Continued*			
04AP-03-GISS*, *continued*	System, Geospatial Information (GIS), *continued*	• Situational Awareness - supports a common operational picture with near real-time intelligence fused with geospatial information fully describing the area of operations in a spatial context • Navigation • Monitoring (tracking, weather, traffic, assets, environment, damage assessments, disease surveillance) • Modeling - combines complex spatial information and applies modeling tools to predict consequences of events in support of planning, mitigation, response and recovery • Mapping - presents fused information in a standard, distributable and easily recognizable format • Reporting (activity, after-action, alert-warning, location, situation, coverage portrayal)	
AP - Application Systems and Software 04 Risk Management Software			
04AP-04-RISK	Software, Risk Management	Software or systems that facilitate capture, quantification, and management of risk factors involved in specific tasks, environments, or programs.	
AP - Application Systems and Software 05 Incident Management			
04AP-05-CDSS*	Systems and Tools, ICS	Incident Command System (ICS) software including command/plans and decision-support tools. Also includes NIMS-compliant field incident management materials such as T-Cards and holders, specialized forms, etc.	107, 177
04AP-05-CRED	System, Credentialing	Software application and associated hardware and material for creating site/event credential badges and controlling scene access.	
04AP-05-SVIS*	Software, Operational Space Visualization	Operational space visualization tools.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 4 – INFORMATION TECHNOLOGY

Item Number	Title	Description	Standards[1]
AP - Application Systems and Software 06 Analytical Tools			
04AP-06-CBRN	Software, CBRNE/ Commercial Chemical/ Hazard	CBRNE/commercial chemical/hazard software and response system that enables the tracking, identification, and/or querying of information relating to CBRNE sources.	
04AP-06-PMOD	Software, Plume Modeling	Plume modeling fate and transport software and/or databases capable of real-time linkage to sensors and meteorological monitoring and detection.	
04AP-06-TRAF	Software, Traffic Modeling	Software designed to depict traffic flow, identify congestion points, and predict impact of accidents or deliberate alterations of traffic patterns such as alterations of signal times, detours, closures, etc. Traffic flow may be for vehicular, maritime, aviation, pedestrian, or other flows.	
AP - Application Systems and Software 07 Inventory			
04AP-07-INVN*	Software, Equipment Tracking and Inventory	Application software for tracking of tangible equipment, including location and person(s)/ organization(s) responsible.	
AP - Application Systems and Software 08 Simulation			
04AP-08-SIMS*	Simulators	Systems that provide interactive audio or audio-visual simulation of operational situations to support training, planning, or decision making.	
AP - Application Systems and Software 09 Notification and Warning Systems			
04AP-09-ALRT	Systems, Public Notification and Warning	Systems used to alert the public of protective actions or to provide warning to the public in the event of an incident, such as sirens, the Emergency Alert System (EAS), and the Integrated Public Alert and Warning System (IPAWS).	99
HW - Hardware 01 Computers			
04HW-01-DTOP*	Computer, Desktop	Desktop computer, basic.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 4 – INFORMATION TECHNOLOGY

Item Number	Title	Description	Standards[1]
HW - Hardware 01 Computers - *Continued*			
04HW-01-HHCD*	Computing Device, Handheld	Handheld and "ultraportable" computing devices with connectivity. Includes a variety of platforms such as PDAs, Windows-compatible devices, netbooks, and pad devices. (See 04HW-01-NTBK for tablet and notebook computers).	
04HW-01-MOBL	Computer, Mobile Data	Mobile computer devices, usually mounted permanently in vehicle, operating from DC power supply. Used for data upload and download, as well as local data entry.	
04HW-01-NTBK*	Computer, Portable	Basic notebook or tablet computer.	
04HW-01-SRVR*	Computer, Server	Computer used as central host to provide connectivity or data to other systems/users.	
HW - Hardware 02 Peripherals			
04HW-02-ALL1*	All-in-One	Printer / Copier / Fax / Scanner in single device with either inkjet or laser printing capability.	
04HW-02-BARC	Equipment, Bar Code Reading and Printing	Bar code readers and printers, including devices that have wireless network capabilities.	
04HW-02-PLOT	Plotter	Output device for producing oversize hard-copy output such as maps and visualization graphics.	
04HW-02-PRNT*	Printer	Printer using laser or ink-jet technology.	
04HW-02-RFID*	Devices, Radio Frequency Identification	Radio Frequency Identification Devices (RFID) and associated readers.	
04HW-02-SCAN	Scanner, Imaging	Scanner, flatbed or portable, for converting documents, images, etc. to one or more computer-storable formats.	
04HW-02-STOR*	Storage, Portable External	Devices that function as virtual drives for storage and transfer of files. Includes USB memory sticks and cards, flash drives, smart chips, etc.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 4 – INFORMATION TECHNOLOGY

Item Number	Title	Description	Standards[1]
HW - Hardware 03 Networking Components			
04HW-03-ROUT*	Router	Network device that connects two or more networks or computers, providing appropriate addressing and packet handling.	111, 112, 176
04HW-03-SSRV*	Server, Serial	Device that provides a network (TCP/IP) presence for serial devices. Example: printer network adapter.	
04HW-03-SWCH*	Switch, Network	Network switching device.	
04HW-03-WAP*	Access Point, Wireless	Wireless Access Point (WAP) for local area networking under 802.11x.	111, 112, 113, 176
HW - Hardware 04 Miscellaneous Adapter Cables/Connections			
04HW-04-CABL	Adapter Cables/ Connectors	Miscellaneous adapter cables/connectors.	
MD - Media Devices 01 Cameras and Surveillance Equipment			
04MD-01-CMRA*	Camera, Still	Still camera, digital or film.	
04MD-01-IRED	Camera, Infrared (IR)	Infrared (IR) a. Thermal b. Forward Looking Infrared Radiation (FLIR), and/or c. Infrared detection	
04MD-01-IRIL	Equipment, Illumination, IR	Infrared illumination equipment.	
04MD-01-LAMP	Equipment, Light Amplification	Light amplification (night vision enhancement) equipment, including hand-held, helmet mounted, or equipment-mounted tactical systems. Includes hardware/accessories necessary for helmet/equipment mounting.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 4 – INFORMATION TECHNOLOGY

Item Number	Title	Description	Standards[1]
MD - Media Devices 01 Cameras and Surveillance Equipment - *Continued*			
04MD-01-UCAM	Camera, Underwater (Still/Video)	Still or video camera adapted or designed for use underwater.	
04MD-01-VCAM*	Camera, Video	Video camera.	
MD - Media Devices 02 Projectors			
04MD-02-PROJ*	Projector, Video	Video projector.	
MD - Media Devices 03 Displays			
04MD-03-DISP*	Display, Video	Video display - assorted technologies including Plasma, LCD, etc.	
SN - Sensor Devices 01 Remote Sensors			
04SN-01-PTMS*	Station, Portable Meteorological	Portable meteorological station that monitors (at a minimum) temperature, wind speed, wind direction, precipitation, relative humidity, and barometric pressure.	
04SN-01-XMIT*	Transmission Device, Wireless, Remote Sensor	A device which, when attached to a remote sensor such as a video camera or chemical detector, allows wireless transmission of data to a distant base. May use radio frequency (RF) or infrared (IR) transmission.	
SW - System and Networking Software 01 Operating Systems			
04SW-01-OSSS*	System, Server Operating	Operating systems for servers. Examples include Windows, Mac OS X Server, Unix, Linux.	
04SW-01-OSSW*	System, Workstation Operating	Operating systems for workstations. Examples include Windows, Mac OS X, Unix, Linux.	
SW - System and Networking Software 02 Application Programs			
04SW-02-EMLC	Software, E-mail Client	E-mail client software.	173
04SW-02-EMLS*	Software, E-mail Server	E-mail server software.	173

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 4 – INFORMATION TECHNOLOGY

Item Number	Title	Description	Standards[1]
SW - System and Networking Software 02 Application Programs - *Continued*			
04SW-02-IMSG	Software, Instant Messaging	Instant messaging (IM) software.	
04SW-02-VCSW*	Software, Video Teleconferencing	Video teleconferencing software.	
SW - System and Networking Software 03 Suites			
04SW-03-OFFC	Software, Office Software Suite	Office software suite (spreadsheet, database, word processing and graphics presentation).	
SW - System and Networking Software 04 Network Operating and Monitoring Systems			
04SW-04-NETW	Software, Network	Software for networking, monitoring network performance and/or maintaining configuration.	
SW - System and Networking Software 05 Monitoring Software			
04SW-05-SCAD	System, SCADA (Supervisory Control and Data Acquisition)	A software/hardware system designed primarily to monitor and control remote sensors and actuators. Uses vary from large-scale examples such as refinery or power grid control to building HVAC systems.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 5 – CYBER SECURITY ENHANCEMENT EQUIPMENT

Overview

This section lists equipment, software, and systems that contribute to improved information security. Five major functional categories are defined: Authentication Devices, Encryption, Host Level Security, Network Level Security, and Patch/Configuration Management. The items recommended in this section are included in the SEL because of the criticality of responders' information infrastructure in areas ranging from hazard assessment to communications and incident command. The increasing vulnerability of networks impacts both the reliability of this infrastructure and user confidence in the information they receive. Thus, cyber security must be considered in deployment and response operations.

Section Changes for 2010

There are no major changes in this edition. However, multiple changes have been made to descriptions, features, and operating considerations throughout the section to keep pace with technical advancements.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
4	0	0

Cyber Security Self-Assessment Questions and Resources

This set of suggestions and questions was originally introduced in 2006, and remains extremely relevant to all responder organizations. Agencies and jurisdictions at every level must have appropriate policies in place, understand their vulnerabilities, weigh the risks involved and make informed decisions on how to spend resources to secure systems and data. Thousands of new computer viruses and other forms of "malware" are reported every year, and it now only takes a few minutes to compromise an unprotected computer that is connected to the Internet. Any successful cyber attack can be devastating to networks, to the information contained within systems and, just as importantly, to the confidence of those who depend on these systems to accomplish their mission.

Information security is mission critical to every emergency responder. Every agency and jurisdiction should carefully consider the full scope of these three key components of information security:

- **Confidentiality,** the ability to ensure that only authorized personnel/systems have access to any given data;
- **Integrity,** the ability to ensure that data is not corrupted, and that only authorized personnel/ systems can change any given data; and,
- **Availability,** the ability to ensure that authorized personnel have timely and complete access to data whenever and wherever it is required.

The relative importance of these three components will vary among organizations. For example, fire dispatch may place a premium on availability at the expense of confidentiality, while an intelligence sharing center might sacrifice availability to ensure confidentiality. Ultimately, all three must be achieved to at least a minimal degree in order to meet mission requirements.

Each state and local government entity should develop and execute a comprehensive cyber security plan that demonstrates due diligence in cyber security. The goal of a cyber security plan is to identify the cyber threat environment, and address these threats in order to maintain confidentiality, integrity and availability sufficient for mission performance. The plan must account for factors such as limited staff and resources (and staff turnover), varying size and complexity of the organization, varying cyber security and technology knowledge base within the organization, and a wide variance in technology being used. In addition to developing a comprehensive plan, organizations must periodically test and exercise their plan, using vulnerability assessments to identify gaps in policy and technology, as well as training needs.

This plan must address four main functional areas: Policy, Training, Technology Deployment, and Vulnerability Assessment. Each of these areas supports the others, and together they meet emerging standards of due diligence in information security. The questions below are designed to assist in "self assessment" and identify key issues within each major area. We have used the term "Organization" to represent a wide range of agencies, departments, and jurisdictions.

Policy:

- Does the Organization have a cyber security plan in place that sets the vision, goals, and objectives for Organization-wide cyber security?

- Has the Organization published a clear policy statement on cyber security to support the plan, including a "permitted use" policy for all Organization-owned cyber assets? Has this policy set been made available to subordinate organizations so that it can be adapted for their use?

- Does the Organization's policy statement provide a clear mechanism for feedback and use of vulnerability assessment results to refine policies, training, and technology deployment?

- Has the Organization established a certification/accreditation program for information systems?

- Does the Organization have a designated cyber security office/officer whose primary focus is on protecting the Organization's cyber infrastructure?

- Does the Organization have established cyber security metrics? Does the Organization have a mechanism for rating its cyber security alert level?

- Has the Organization established public, private, or academic partnerships for cyber security collaboration?

- Does the Organization have a capability for internal secure information sharing (Organization-wide secure portal)?

- Does the Organization have a formal connectivity policy covering network connections with external partners (including local government, state-wide intranet, etc.)? Does this policy address protection against intrusions via these connections?

- Does the Organization have a formal connectivity policy covering telecommuters or personnel who require access to internal systems from home or other off-site locations? If so, does this plan address vulnerabilities in off-site computers, such as home computers, that might be connected to the internal network?

- Does the Organization have a cyber operational center that functions 24/7? Does the Organization have an ad hoc 24/7 capability if an operational center does not exist?

- Does the Organization have an organization-wide Computer Security Incident Response Policy (IRP)? Is there a corresponding response plan, and are key personnel aware of their roles and all appropriate notification requirements?

- Does the Organization have a Continuity of Operations (COOP) plan that encompasses both communications and information technology capability?

- Does the Organization maintain a relationship with federal entities such as the United States Computer Emergency Readiness Team (US-CERT)?

Training:

- Does the Organization ensure that all employees have cyber security awareness training both at time of hire and on an annual recurring basis? Does this training include familiarization with permitted use policies? Do employees sign an acknowledgement of their familiarity with the Organization's cyber security policies?

- Are training programs available at multiple levels commensurate with employees' responsibility (e.g., general awareness, system administrator, network administrator, etc.)?

- Does the Organization have an outreach program to ensure the greatest penetration possible for cyber security awareness throughout state and local governments?

- Does the Organization have a web presence that provides cyber security guidance?

- Does the Organization have a program to establish and maintain a set of best practices for cyber security, both for its own use and to share with local jurisdictions?

Technology Deployment:

- Is the technology deployed by the Organization justified in terms of identified cyber security threats and a valid risk management strategy?

- Has the Organization deployed appropriate technology for basic cyber security requirements such as anti-virus protection and firewalls on Internet-facing assets?

- Has the Organization deployed specific technology (including modifications and patches to existing systems and software) to respond to vulnerabilities identified by internal or third-party vulnerability assessments?

- Does the Organization have an asset management system that tracks the number, type, and location of information technology assets? Does the Organization maintain a map of its network that depicts the position of these assets on its network? Does the system track personnel who are authorized access to cyber assets?

- Does the Organization have a system in place for tracking software versions in use, relevant known vulnerabilities and available patches to counter those vulnerabilities?

- Does the Organization have cyber forensics capabilities to serve both civil and criminal matters for the Organization?

- Does the cyber security technology deployed by the Organization have sufficient capability and capacity to function in both routine and crisis management conditions?

- Has the Organization addressed the physical security requirements of its cyber assets (e.g., physically isolating servers and network equipment, access control for server area, etc.)?

Vulnerability Assessment:

- Does the Organization have a formal program for periodic internal vulnerability assessment and maintain a baseline of cyber threats and vulnerabilities?

- Does the Organization supplement its internal assessment program with third-party vulnerability assessments?

- Is there a formal risk management process by which assessment results are converted into prioritized remedial actions and tracked to completion?

While many of these questions are oriented to larger organizations, smaller entities such as local jurisdictions should review many of the same questions, scaled to their individual needs. *Every organization that owns and operates information technology equipment should have at least a rudimentary cyber security plan, and appoint an Information Security Officer (ISO) or single point of contact for cyber security, including up-to-date 24/7 contact information.* In some cases, smaller organizations may be able to obtain sample policy documents and plans from their parent organization

and tailor them. Also, smaller jurisdictions should establish cooperative agreements to obtain access to specialized assistance, such as forensic analysis, when required.

Some of the software "products" useful in the cyber security area are "freeware," i.e., they are available at no cost if certain restrictions are followed. Readers are also urged to review the information at the following sites, which provide valuable advice, best practices, and opportunities for support and information sharing:

CERT® Program Virtual Training Environment (VTE)
http://vte.cert.org

The Virtual Training Environment (VTE) is a web-based knowledge library for information assurance, computer forensics and incident response, and other IT-related topics. VTE is produced by the CERT® program of the Software Engineering Institute at Carnegie Mellon University. While VTE is used primarily to offer security training, DoD 8570.1 and FISMA training, and CERT® courses to partner organizations and students in an online format, CERT® makes as much of its library as possible available to the public in an effort to create a more knowledgeable information security community.

National Institute of Standards and Technology (NIST)
http://csrc.nist.gov/

Founded in 1901, NIST is a non-regulatory federal agency within the U.S. Commerce Department's Technology Administration. NIST's mission is to develop and promote measurement, standards, and technology to enhance productivity, facilitate trade, and improve the quality of life. The NIST Information Technology Laboratory, Computer Security Division provides a variety of tips, newsletters, and publications to support cyber security efforts.

US Computer Emergency Readiness Team (US CERT)
http://www.us-cert.gov/

Established in 2003 to protect the nation's Internet infrastructure, US-CERT coordinates defense against and responses to cyber attacks across the nation.

Multi-State Information Sharing and Analysis Center (MS-ISAC)
http://www.msisac.org/

A public site identifying what the MS-ISAC is and what its mission, goals and objectives are in improving the nation's cyber security posture from a state and local perspective. The goal is to have this MS-ISAC include all fifty states, which would provide a valuable centrally-coordinated mechanism for sharing important security intelligence and information between the States. The MS-ISAC can serve as a critical point of contact between the States and the Federal government. A primary goal of the MSISAC is to eliminate duplicative efforts.

The SANS™ Institute
http://www.sans.org/rr (reading room) and http://isc.sans.org (Internet Storm Center)

The SANS (SysAdmin, Audit, Network, Security) Institute SANS is an example of non-government cyber security resources and is one of the largest sources for information security training and certification in the world. It also develops, maintains, and makes available at no cost, the largest collection of research documents about various aspects of information security and operates the Internet's early warning system - the Internet Storm Center. SANS was established in 1989 as a cooperative research and education organization. Its programs now reach more than 165,000 security professionals, auditors, system administrators, network administrators, chief information security officers, and CIOs who share the lessons they are learning and jointly find solutions to the challenges they face.

National Security Agency Central Security Service

http://www.nsa.gov/snac

NSA initiatives in enhancing software security cover both proprietary and open source software, and they have successfully used both proprietary and open source models in their research activities. NSA's work to enhance the security of software is motivated by one simple consideration: use their resources as efficiently as possible to give NSA's customers the best possible security options in the most widely employed products. The objective of the NSA research program is to develop technologic advances that can be shared with the software development community through a variety of transfer mechanisms. NSA does not favor or promote any specific software product or business model; rather, NSA is promoting enhanced security.

SECTION 5 – CYBER SECURITY ENHANCEMENT EQUIPMENT

Item Number	Title	Description	Standards[1]
AU - Authentication Devices			
05AU-00-BIOM*	Device, Biometric User Authentication	Devices that utilize biometric characteristics (fingerprints, palm prints, retinal scanning, etc.) to authorize access to facilities and/or systems.	178
05AU-00-TOKN	System, Remote Authentication	System used to provide enhanced remote authentication, usually consisting of a server, some synchronization scheme, and a device or token.	
EN - Encryption			
05EN-00-ECRP*	Software, Encryption	Encryption software for protecting stored data files or email messages.	100, 105, 106, 169
05EN-00-ETRN	Encryption, Data Transmission	A class of network access solutions, usually for remote access, that provide encrypted user access. May be used for remote access, point to point, or link encryption. Includes virtual private networks, and encrypted transmission modes such as SSH and SSL.	100, 105, 106, 169
HS - Host Level Security			
05HS-00-FRNS*	Software, Forensic	Application suites that allow in-depth analysis of hosts based on operating system and file systems. Software of this type may be used by law enforcement officers, government/ corporate investigators and consultants to investigate the aftermath of computer-related crimes. Forensics software generally includes disk analysis tools, tools for the recovery of deleted files, and integrated database support to mark files and data of interest to investigators.	169, 179
05HS-00-MALW	Software, Malware Protection	Software for protection against viruses, spyware, and malicious code. May be obtained for individual hosts or for entire network segments.	169, 173, 179
05HS-00-PFWL	System, Personal Firewall	Personal firewall for operation on individual workstations. Usually a software solution, but appliances are also available. See also: 05NP-00-FWAL.	169, 171, 179
NP - Network Level Security			
05NP-00-FWAL	Firewall, Network	Firewall (software or standalone appliance) for use in protecting networks. See also 05HS-00-PFWL.	169, 171, 175, 179

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 5 – CYBER SECURITY ENHANCEMENT EQUIPMENT

Item Number	Title	Description	Standards[1]
NP - Network Level Security - *Continued*			
05NP-00-IDPS*	System, Intrusion Detection/Prevention	Intrusion Detection and/or Prevention System (IDS, IPS) deployed at either host or network level to detect and/or prevent unauthorized or aberrant behavior on the network. Software and hardware (appliance) solutions exist. This replaces item 05NP-00-IDS and incorporates more recent prevention technology.	169, 172, 174, 179, 180
05NP-00-SCAN	Tools, Network Vulnerability Scanning	Port scanners and other tools designed to identify security vulnerabilities on networks or individual hosts on target networks.	169, 179
05NP-00-SEIM	System, Security Event/ Incident Management	Software or appliance that gathers data from multiple security sources such as firewalls, intrusion detection systems, malware protection systems, etc. to provide log file consolidation and event correlation capability in support of network security operations.	169, 179
PM - Patch and Configuration Management			
05PM-00-PTCH	System, Patch/ Configuration Management	System to manage the update and installation of patches, applications, and/or operating systems utilized by an organization in order to maintain current "version control."	170

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 6 – INTEROPERABLE COMMUNICATIONS EQUIPMENT

Overview

This section lists equipment and systems that provide communications functionality, connectivity, and interoperability between local agencies and other organizations. The items mentioned serve to develop situational awareness and better coordinate response operations for CBRNE terrorism and other "all-hazard" homeland security operations.

Like previous editions, the 2010 SEL has divided information technology, cyber security and communications into three distinct sections (Sections 4, 5, and 6 respectively). While there continues to be a close connection among the three (and even some merging of technologies such as voice communications over the Internet), the separation of sections should make it easier to locate desired equipment items. This year's SEL also continues the practice of providing information on desirable features, operating considerations, and standards (where applicable). These fields are designed to enhance the reader's understanding of the defined items and their practical use.

Section Changes for 2010

There are no major changes in this edition. However, multiple changes have been made to descriptions, features, and operating considerations throughout the section to keep pace with technical advancements.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
12	0	0

SECTION 6 – INTEROPERABLE COMMUNICATIONS EQUIPMENT

Item Number	Title	Description	Standards[1]
CC - Commercial 01 Cell - Digital			
06CC-01-CELL*	Phone, Cellular	Cellular phone.	
CC - Commercial 02 Data & Messaging			
06CC-02-2WAY	Device, Messaging, 2-Way Text	Text messaging device with 2-way capability.	
06CC-02-DSAD*	Device, Data Service Access	PCMCIA card, serial device, or USB device for access to on-line data services.	
06CC-02-PAGE*	Services/Systems, Paging	Paging services/systems, 1-way text messaging.	
CC - Commercial 03 Satellite Phone			
06CC-03-SATB*	Phone, Satellite Base	Satellite communication device, fixed location.	
06CC-03-SATM*	Phone, Satellite Mobile	Satellite communication device, mobile.	
06CC-03-SATP*	Phone, Satellite Portable	Satellite service with handheld device.	
CC - Commercial 04 Satellite Data Services			
06CC-04-EQSD	Equipment, Satellite Data	Satellite earth station transmitter and receiver, usually Ku-Band. Examples include, but are not limited to Iridium and INMARSAT A and B.	
06CC-04-SADS	Services, Satellite Data	Satellite data services (Internet access via satellite connection). Commercial providers of Internet connectivity via satellite.	
06CC-04-SSBR	Services, Satellite, Brokered	Full-service rental/lease of satellite transponder time, including truck and technicians.	
06CC-04-SSFT	Space Segment, Full-Time, Leased	Satellite transponder time purchased on long-term contracts.	
06CC-04-SSHB	Space Segment, Hourly, Brokered	Satellite transponder time purchased by the hour.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 6 – INTEROPERABLE COMMUNICATIONS EQUIPMENT

Item Number	Title	Description	Standards[1]
CC - Commercial 05 Priority Services			
06CC-05-PRTY	Priority Services, Communications	Services to ensure priority communication over common carrier media, such as cellular phones or telephone land lines. Includes Government Emergency Telecommunications Service (GETS), NCS Telecommunications Service Priority (TSP) Program, and NCS Wireless Priority Services (WPS).	
CP - Private 01 Land-Mobile Radios & Bases			
06CP-01-BASE*	Radio, Base	Base radio system.	63
06CP-01-HFRQ	Radio, High Frequency (HF) Single Sideband	High frequency (HF) single sideband communications equipment.	
06CP-01-MOBL*	Radio, Mobile	Mobile radio equipment, deployed in/on vehicles, or can also be deployed as temporary base stations.	63
06CP-01-PORT*	Radio, Portable	Individual/portable radio transceivers.	63
06CP-01-REPT	Repeaters	An electronic device that receives a weak or low-level signal and retransmits that signal to extend usable range.	
06CP-01-VOTR	Receivers, Voter	A device that evaluates the comparative strength and signal/noise ratio from multiple receivers on the same frequency, selects the "best" signal and retransmits.	
CP - Private 02 Bridging/Patching/Gateway Equipment			
06CP-02-BRDG	Equipment, Bridging/ Patching/Gateway	Includes a wide range of equipment and software utilized to connect disparate communications networks. Systems range from cords that can patch two radios to interface boxes that can link dozens of radios, phones, computers, etc. in multiple sessions.	
CP - Private 03 Other Land-Mobile Radio Equipment			
06CP-03-BAMP*	Amplifiers, Bi-directional	Bi-directional amplifiers, application defined.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 6 – INTEROPERABLE COMMUNICATIONS EQUIPMENT

Item Number	Title	Description	Standards[1]
CP - Private 03 Other Land-Mobile Radio Equipment - *Continued*			
06CP-03-ICOM	Intercom	System for hands-free (wired or wireless) communication for limited numbers of personnel in close proximity, such as vehicle crew members. Includes systems designed for underwater use.	
06CP-03-MWAV	Radio, Microwave Link	Microwave link for remote control of radio base stations or for links between infrastructure components and other communication assets.	
06CP-03-NRSC	Cable, Non Radiation-Shielded Transmission	Non radiation-shielded transmission cable between base/repeater and antenna.	
06CP-03-PRAC	Accessories, Portable Radio	Speaker/microphone extensions to portable radios. Sometimes used within encapsulated/partially encapsulated suits, where restricted access to radio equipment impedes normal portable radio operations.	
06CP-03-TOWR*	Systems, Antenna and Tower	Fixed and portable.	
CP - Private 04 Wide Area Networks			
06CP-04-WADN	Network, Wide Area Digital	Wide area digital network, voice/data capable.	
CP - Private 05 Wire-Line Communication			
06CP-05-BRAC*	Bridge, Audio Teleconferencing	Device to connect more than two parties (up to several dozen) into a single audio conference.	
06CP-05-LPBX	Exchange, Private Branch, Portable	Portable private branch exchange (PBX).	
06CP-05-VCNB	Bridge, Video Teleconferencing	Device to connect more than four parties (up to several dozen) into a single video conference.	
06CP-05-VCON	Teleconferencing, Video	Video teleconferencing over ISDN telephone lines or broadband facilities.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 6 – INTEROPERABLE COMMUNICATIONS EQUIPMENT

Item Number	Title	Description	Standards[1]
CP - Private 06 Communications Security (COMSEC) Support Equipment			
06CP-06-SAFE	Safe, GSA-Rated	Safe for storing sensitive material and equipment such as encryption keys or encryption key loaders.	
06CP-06-SHRD	Shredder / Disintegrator	Shredding or disintegrating device for the destruction of sensitive materials such as reports or encryption key material.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 7 – DETECTION EQUIPMENT

Overview

This section is structured to show detection equipment based on both the type of expected hazard (Chemical, Biological, Radiological, Explosive) and the anticipated mode of use (Portable, Transportable Lab Equipment, Fixed Site, and Standoff). The description of each item of detection equipment also includes an annotation on capability. It is shown as the "DIQCode", and contains one or more of three codes: D for Detect, I for Identify, and Q for Quantify.

The category structure is organized around likely modes of use. The major categories are Chemical Detection and Sampling, Biological Detection and Sampling, Explosive Detection, Radiological Detection and Sampling, and Support Equipment. Within these categories, the subcategories reflect the general class of equipment as follows:

- **Portable,** defined as being human-portable for mobile operations in the field. The instrument is light enough to be carried or worn by an emergency responder and operated by one individual.
- **Transportable Lab Equipment,** defined as being transportable for mobile operations in the field but generally requiring a trained technical operator as well as extensive labor.
- **Fixed-Site Sampling or Detection Systems,** defined as stand-alone detection systems specifically designed to operate inside a building, fixed-mounted to a vehicle, or set up in a fixed location to monitor an incident perimeter.
- **Standoff Detector Systems,** defined as equipment specifically designed to monitor the presence of chemical/biological agents that may be present in the atmosphere up to three miles away. These systems typically require one or two individuals for monitoring operations. Depending on the technique employed and the environmental conditions, these detectors can have high or low selectivity. Standoff detectors usually require vehicle transport and special setup.

The Equipment SubGroup is working to incorporate applicable testing standards and certifications as they become available and approved for all types of detection devices.

The SubGroup strongly recommends that a minimum of two different but complementary detection technologies (e.g., infrared, acoustic wave, etc.) be used to validate readings rather than relying upon any single instrument. This procedure will assist responders in interpreting data to better conduct their risk assessment and incident action plan.

Cost Rating Codes

The "$" codes used in earlier editions of this section for purchase and operations and maintenance (O&M) costs are still provided within the Operating Considerations field. *Note: rating scales are used to give a general indication as to the time and costs associated with each type of equipment, and should not be used as the sole determinant in equipment selection.*

The initial cost was based on the estimated average cost of equipment that fit the category, including all necessary (but not extra) components. The O&M costs were based on estimated average annual requirements. The following scale is used:

<$1K	$
$1-10K	$$
$10-50K	$$$
$50-100K	$$$$
>$100K	$$$$$

Section Changes for 2010

In addition to routine edits and improvements, multiple items were changed to incorporate new technologies (e.g., the expansion of Items 07CD-01-DPSI and 07ED-01-IMOB to include Differential Ion Mobility Spectronomy (DMS) in addition to Ion Mobility Spectronomy (IMS)).

In reviewing the Explosives Detection category, the SubGroup realized that several key detection technologies represented in the Chemical Detection category were also capable of explosives detection if operating with the correct libraries. New items were added to the portable explosives detection subcategory to ensure coverage for detectors using infrared and laser-based technologies. Two new items were also added for standoff explosive detection, reflecting the emergence of new viable product types. Finally, technologies for standoff detection of Gamma/Neutron radiation have progressed to the point where an item was added in the Radiation Detection category.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
21	5	0

New items:

07ED-01-IRED   Detector, Explosive, Infrared Spectroscopy

07ED-01-LASR   Detector, Explosive, Laser-Based

07ED-04-LASR   Detector, Explosive, Laser-Based, Standoff

07ED-04-PASS   Detector, Explosive, Passive, Standoff

07RD-04-SGND   Detector, Gamma/Neutron, Standoff

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
BD - Biological Detection 01 Portable			
07BD-01-KFAS	Kit, Field Assay	Field assay kit. DIQCode: [D,I]	79, 81, 133
07BD-01-OPDT	Detector, Optical	Handheld detector utilizing optical technology to discriminate between bacterial spores and benign material. DIQCode: [D]	81, 133
07BD-01-PTST	Kit, Protein Test	Protein test kit. DIQCode: [D]	81, 133
BD - Biological Detection 02 Transportable Lab Equipment			
07BD-02-DNRN	Analysis, DNA/RNA Detection	DNA/RNA detection analysis (example: PCR, ECL). DIQCode: [D,I]	81, 133
BS - Biological Sampling 01 Portable			
07BS-01-KBBA*	Kit, Biological Batch Sampling / Evidence Recovery	Biological batch sampling and evidence recovery kit. Collects samples for later analysis.	81, 133
07BS-01-KBPA	Sampler, Biological, Portable Air	Portable air sampler for biological sampling/evidence.	133
BS - Biological Sampling 03 Fixed-site Sampling and/or Detection Systems			
07BS-03-KBAP	Kit, Biological Sampling/ evidence - Automated Perimeter Sampling Systems	Biological sampling/evidence kit - automated perimeter sampling systems.	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
CD - Chemical Detection 01 Portable			
07CD-01-CLAS	Strips, Classifier (pH, Waste Water, Chemical)	Waste water classifier strips, pH and chemical. DIQCode: [D]	133
07CD-01-DPFI*	Detector, Flame Ionization (FID), Point, VOC	Flame ionization detector (FID) for point detection of volatile organic compounds (VOC). DIQCode: [D]	133
07CD-01-DPFP*	Detector, Flame Photometry, Point, Chemical Agent	Flame photometry detector for point chemical agent detection. DIQCode: [D,I,Q]	133
07CD-01-DPIR*	Detector, Infrared Spectroscopy, Point, Chemical Agent	Point chemical agent detector utilizing infrared spectroscopy. These detectors may also have explosive detection capability when equipped with appropriate spectra libraries. See Item 07ED-01-IRED. DIQCode: [D,I,Q]	133
07CD-01-DPMG	Detector, Multi-sensor Meter, Point, Chemical	Multi-sensor meter with minimum of O2 and LEL for point chemical detection. DIQCode: [D,I,Q]	133, 186
07CD-01-DPPI	Detector, Photo-Ionization (PID), Point, Volatile Organic Chemical (VOC)	Photo-ionization detector (PID) for point detection of volatile organic chemicals (VOC). DIQCode: [D]	133
07CD-01-DPRS*	Detector, Raman Spectroscopy, Point, Chemical Agent	Point chemical agent detector utilizing Raman spectroscopy. These detectors may also have explosive detection capability when equipped with appropriate spectra libraries. See Item 07ED-01-LASR. DIQCode: [D,I] [Note: Replaces 07CD-01-DPFR.]	133
07CD-01-DPSI*	Detector, Ion Mobility Spectrometry, Point, Chemical Agent	Ion mobility spectrometry (IMS) or Differential Ion Mobility Spectrometry (DMS) detector for point chemical agent detection. DIQCode: [D,I]	133
07CD-01-DPSW*	Detector, Surface Acoustic Wave (SAW), Point, Chemical Agent	Surface acoustic wave detector for point chemical agent detection. DIQCode: [D,I]	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
CD - Chemical Detection 01 Portable - *Continued*			
07CD-01-FTIR*	Detector, Fourier Transform Infrared, Point, Chemical Agent	Point chemical agent detector utilizing infrared spectroscopy with Fourier Transform capability. These detectors may also have explosive detection capability when equipped with appropriate spectra libraries. See Item 07ED-01-IRED. [Note: Replaces 07CD-01-DPFR.] DIQCode: [D,I]	133
07CD-01-INPA	Paper, Indicating, (M-8)	Indicating paper, chemical warfare agent. DIQCode: [D,I]	133
07CD-01-INTP	Tape, Indicating (M-9)	Indicating tape, chemical warfare agent. DIQCode: [D, I]	133
07CD-01-KCTC	Kit, Colorimetric Tape/Tube/Chip	Colorimetric tape/tube/chip kit specific for TICs and WMD applications. DIQCode: [D,I,Q]	73, 80, 133
07CD-01-KLSV	Kit, Chemical Classifying	Chemical classifying kit for unknown liquids, solids and vapors. DIQCode: [D,I]	133
07CD-01-KPCB	Kit, PCB Test	PCB test kit. DIQCode: [D, I, Q]	133
07CD-01-KTHG	Kit, Mercury Test / Mercury Vapor Test	Mercury and mercury vapor test kit. DIQCode: [D,I]	133
07CD-01-KWTR	Kit, Chemical Agent Water Test	Chemical agent water test kit. DIQCode: [D]	133
07CD-01-M256	Kit, M-256(A1)	M-256(A1) detection kit for chemical agent (military grade; blister: HD/L; blood: AC/CK; and nerve: GB/VX) detection. DIQCode: [D, I]	133
07CD-01-MONO	Detector, Single Chemical Sensor	Single gas meter with point chemical detection. DIQCode: [D,I,Q]	133
07CD-01-POLY	Detector, Reactive Polymer	Reactive polymer point chemical agent detector. DIQCode: [D,I,Q]	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
CD - Chemical Detection 02 Lab Equipment			
07CD-02-DLSP*	Detector, Spectroscopic, Laboratory, Chemical Agent	Laboratory-grade chemical detector using Raman spectroscopy, Fourier Transform Infrared (FTIR) spectroscopy, or a combination of both types in a single device chassis. DIQCode: [I,Q]	133
07CD-02-DPGC	Detector, Gas Chromatograph/Mass Spectrometer, Chemical Agent	Gas chromatograph and/or mass spectrometer detector for chemical agent detection (GC and/or MS). DIQCode: [D,I]	133
CD - Chemical Detection 03 Fixed Site Sampling and/or Detection Systems			
07CD-03-IRED	Detector, Fixed Site, Chemical	Chemical detection devices designed to be mounted in buildings or on fixed exterior mounts that utilize infrared detection technologies such as Fourier Transform Infrared (FT-IR), Raman, FT-IR/Raman, or photoacoustic infrared (PIR) for chemical detection. DIQCode: [D,I]	133
CD - Chemical Detection 04 Standoff Detectors			
07CD-04-DCSO*	Detector, Stand-Off, Chemical	Stand-off chemical detector. FTIR system. DIQCode: [D, I]	133
CS - Chemical Sampling 01 Portable			
07CS-01-KAVC	Kit, Air/Vapor Chemical Sampling	Air/vapor chemical sampling/evidence kit.	133
07CS-01-KLCS	Kit, Liquid Chemical Sampling	Liquid chemical sampling/evidence kit.	133
07CS-01-KSCS	Kit, Solid Chemical Sampling	Solid chemical sampling/evidence kit.	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
ED - Explosive Detection 01 Portable			
07ED-01-DOGS	Canines, Explosive Detecting	Explosive detecting canines, related CBRNE training, protective equipment/garments, handling and training accessories. DIQCode: [D]	
07ED-01-IMOB*	Trace Detector, Explosive, Handheld	Handheld trace explosive detectors using air-sampling, particulate sampling, or dual mode operation. Underlying technology is Ion Mobility Spectrometry (IMS), Differential Ion Mobility Spectrometry (DMS) or equivalent. This item replaces item 07ED-01-SNIF. DIQCode: [D,I]	133
07ED-01-IRED*	Detector, Explosive, Infrared Spectroscopy	A transportable or handheld detector that utilizes infrared spectroscopy to detect explosive material. Examples include infrared (IR) and Fourier Transform Infrared (FTIR) devices. These detectors may also have chemical detection capability when equipped with appropriate spectra libraries. See Items 07CD-01-DPIR and 07CD-FTIR. DIQCode: [D,I]	133
07ED-01-LASR*	Detector, Explosive, Laser-Based	A transportable or handheld detector that utilizes laser technology and spectral analysis to detect explosive material. Raman Spectroscopy and Laser Induced Breakdown Spectroscopy (LIBS) are examples of current technologies. These detectors may also have chemical and even biological capability when equipped with appropriate spectra libraries. See Item 07CD-01-DPRS. Several new technologies of this type are expected to emerge in the near future, including Laser Acoustics and Laser Photothermal Imaging for residue/solids, as well as Cavity Ringdown Spectroscopy (CRDS) and Photodissociation/Laser-Induced Fluorescence (PD-LIF) for solids and vapors. DIQCode: [D,I]	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
ED - Explosive Detection 03 Fixed-Site Sampling and/or Detection Systems			
07ED-03-PORT*	Portal, Explosive Detecting	Ion mobility spectrometry (IMS) explosives screening equipment. Two types: walk-through and drive-through (vehicle). DIQCode: [D,I]	133
07ED-03-SWPE*	System, Trace Explosive Detection	An explosive detection system that utilizes cloths, papers, strips or other items to wipe a surface. The sampling medium is then placed in a machine that heats the particulates and analyzes the resulting vapor to detect/identify the explosive. DIQCode: [D,I]	133
ED - Explosive Detection 04 Standoff Detectors			
07ED-04-LASR*	Detector, Explosive, Laser-Based, Standoff	A standoff explosive detector based upon active laser-based interrogation of targets from a distance using an unconfined laser beam. The laser-target interaction produces a spectral signature denoting the chemical composition of the target. Explosive materials exhibit unique spectral signatures. Currently, standoff LIBS systems are commercially available as custom-built systems per customer specification. A number of additional technologies are being pursued for laser-based standoff detection and are currently in advanced prototype. These include standoff Raman Spectroscopy, Laser Acoustics, Laser Photothermal Imaging and Spectroscopy, and Laser Photofragmentation.	133
07ED-04-PASS*	Detector, Explosive, Passive, Standoff	An explosive detector that uses sensor-based passive interrogation of area targets from a distance to create a target image. Analyzing the spectral signature indicates the chemical nature of the unknown material. Example technologies include hyperspectral imaging, used primarily for solid/residues analysis, and differential radiometry with a Compact Atmospheric Sounding Interferometer, used for chemical vapor detection.	133
RD - Radiological Detection 01 Portable			
07RD-01-DOSP	Dosimeter, Personal	Personal dosimeter, including film, Thermoluminescence Dosimetry (TLD), and Optical Stimulated Luminescence (OSL). DIQCode: [D,Q]	133, 182

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
RD - Radiological Detection 01 Portable - *Continued*			
07RD-01-DOSS*	Dosimeter, Self-Reading	Self-reading dosimeter (SRD) or pocket ionization chambers (PIC). DIQCode: [D,Q]	114, 125, 133
07RD-01-EPD*	Dosimeter, Personal, Electronic	Electronic personal dosimeter (EPD). DIQCode: [D,Q] [Note: This item was previously numbered as 07RD-01-DOSE.]	125, 133
07RD-01-HHSM*	Meter, Survey, Handheld	Handheld survey meter such as Geiger-Mueller (GM) meter or ionization chamber. Various probes allow detection of alpha, beta, beta/gamma, and neutron. DIQCode: [D,Q] [Note: This item was previously numbered as 07RD-01-HHCM.]	117, 133
07RD-01-PDGA	Detector, Radiation, Alarming, Personal (Gamma and Neutron)	Personal radiation (gamma and neutron) detection device which provides an alarm based on detection, but does not quantify dose-rate. DIQCode: [D]	116, 133
07RD-01-RIID*	Identifier, Isotope, Radionuclide	Handheld spectrometer for nuclide identification using crystals such as NaI, CZT, LaBr, and Germanium. DIQCode: [D,I,Q] [Note: This item was previously numbered as 07RD-02-HHSP.]	118, 133
RD - Radiological Detection 02 Transportable Lab Equipment			
07RD-02-DRHS*	Detector, Radionuclide, High-Sensitivity	Radionuclide detector utilizing high-purity crystal such as germanium. DIQCode: [D,I,Q] [Note: This item was previously numbered as 07RD-01-DHPG.]	115, 133
RD - Radiological Detection 04 Standoff Detectors			
07RD-04-SGND*	Detector, Gamma/ Neutron, Standoff	A detector that can detect gamma/neutron radiation at a stand-off distance of at least 50 feet and specify the type and location of radiation sources, while maintaining sufficient energy resolution and sensitivity to discriminate between normally-occurring radioactive materials, background and potential threats.	133
RS - Radiological Sampling 01 Portable			
07RS-01-AFCB	Equipment, Air Sampling	Air flow calibrators for samplers. Personal air sampler. Area air sampler (high volume).	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 7 – DETECTION EQUIPMENT

Item Number	Title	Description	Standards[1]
SE - Support Equipment 01 Portable			
07SE-01-IHTS	Sensor, Heat, Infrared	Heat sensing device.	133
07SE-01-LEAK*	Detectors, Leak	Leak detectors (e.g., soap solution, ammonium hydroxide, ultrasonic, etc.). (Replaces Item 07CS-01-LEAK)	133
07SE-01-THMS*	Thermometer, Surface	Surface thermometer.	133
SE - Support Equipment 03 Fixed Site Sampling			
07SE-03-ENVS*	Equipment, Environmental (Weather) Surveillance	Environmental (weather) surveillance equipment to support CBRNE detectors.	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 8 – DECONTAMINATION

Overview

This section contains recommendations for decontamination equipment. It is organized into three main categories, as follows:

- **Individual Decontamination,** which contains personal decontamination items.

- **Active Decontamination,** defined as equipment that may be used in removing contamination from individuals and equipment. Active decontamination includes Decontamination Corridor Support, Emergency Decontamination, Technical Decontamination, and Site/Equipment Decontamination.

- **Post-Decontamination,** defined as equipment that may be used after active decontamination.

Successful CBRNE HAZMAT response requires a sound decontamination plan that has been practiced with proper techniques and equipment. In addition to personnel, techniques, and equipment, the plan should address factors such as run-off and hazardous materials disposal, since some CBRNE agents may be neutralized while others may become hydrolyzed or diluted while being physically washed off patients and equipment. Plans should include as many specific procedures as possible—if a hazardous material has been identified through testing, then the decontamination plan should include proper PPE and decontamination equipment appropriate to the hazard. The plan should include multiple stages of decontamination (e.g., field expedient gross decon for personnel and equipment), with appropriate equipment and training required for each stage. The decontamination plan must also interface smoothly with other operating plans, such as medical response (e.g., policies for triage at decontamination stages, transportation of contaminated patients, etc.).

Section Changes for 2010

Only one change was made to this section for 2010. The features list for Item 08D2-03-TDEW - Equipment, Technical Decontamination – Wet was modified. All other items remain unchanged.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
1	0	0

SECTION 8 – DECONTAMINATION

Item Number	Title	Description	Standards[1]
D1 - Individual Decontamination 01 Personal Decontamination Items			
08D1-01-KITD	Kits or Packets, Personal Decontamination	Kits or packets used for emergency personal decontamination.	133
08D1-01-LOTN	Lotion, Decontamination	Alternate solution to neutralize chemical warfare agents.	104, 133
D2 - Active Decontamination 01 Decontamination Corridor Support			
08D2-01-HTRB	Heater, Portable Air Blower	Provides climate control for victims during necessary decontamination operations during inclement conditions.	
08D2-01-HTRW	Heaters, Water, Transportable	Used to heat water for decontamination applications in the field.	181
08D2-01-LDCD	Device, Liquid Decontamination Containment	Containment devices intended for use in the decontamination corridor for decontamination of equipment, people, and vehicles.	133
08D2-01-LITE	Lighting, Decontamination Area	Portable area lighting system suitable for use in active decontamination area.	131, 185
08D2-01-LITR	Device, Victim Extrication	Devices such as litters, stretchers, stokes baskets, etc. for moving non-ambulatory victims.	133, 134
08D2-01-PPTS	System, Personal Property Tracking	Personal property tracking system to identify personal effects of decontaminated victims.	133
08D2-01-TDCS	Items, Support, Decontamination Corridor	Signs, signals, traffic cones, lights, hazmat tape, directional signage, strobes, glow sticks, loudspeakers, etc.	131, 133
08D2-01-WWCD	Drum, Waste Water Containment	Drums or bladders for waste water containment and decontamination shower waste collection. To be used in conjunction with Item 08D2-01-LDCD.	66, 133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 8 – DECONTAMINATION

Item Number	Title	Description	Standards[1]
D2 - Active Decontamination 02 Emergency Decontamination			
08D2-02-EDCS	Equipment, Gross Decontamination Application	Equipment or system with the capability to immediately reduce contamination of individuals with potentially life-threatening exposure, with or without the formal establishment of a decontamination corridor.	133
08D2-02-MCDS	Systems, Mass Casualty Decontamination	Mobile or fixed systems capable of delivering water or solutions in varying temperatures and at sufficient flow rates for the purpose of washing numerous contaminated victims. Suitable systems may be tents, trailers, vehicle mounted, or integrated into building systems.	133
D2 - Active Decontamination 03 Technical Decontamination			
08D2-03-SHWR	Shower, Portable Decontamination	Framework designed to deliver water/decontamination solution at low pressure, low volume.	133
08D2-03-TDED	Equipment, Technical Decontamination - Dry	Equipment used to decontaminate or remove dry materials.	133
08D2-03-TDEW*	Equipment, Technical Decontamination - Wet	Equipment used in the physical or chemical process of deliberate decontamination for responders and their equipment using liquids/solutions.	133
D2 - Active Decontamination 04 Site/Equipment Decontamination			
08D2-04-SOLN	Solution, Decontamination, Site (Not For Personnel)	Equipment and site decontamination solutions (not approved for humans).	133
D3 - Post-Decontamination 01 Blankets and Clothing			
08D3-01-BLKT	Blankets, Disposable	Disposable blankets.	133
08D3-01-CLOM	Clothing, Disposable Modesty	Disposable modesty clothing, with footwear; adult and child sizes.	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 8 – DECONTAMINATION

Item Number	Title	Description	Standards[1]
D3 - Post-Decontamination 02 Bags			
08D3-02-BCNT	Bags, Cadaver, Non-transparent	Non-transparent cadaver bags. See also 09MS-01-BAGB	55, 133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

Overview

The IAB's Health, Medical & Responder Safety (HMRS) SubGroup provides guidance regarding health and medical aspects of local, state, and federal first responder/receiver safety. In addition to its own initiatives, the HMRS SubGroup works with the Equipment SubGroup to maintain this section of the SEL.

Items in this section are divided into 5 categories:

- Medical Equipment: durable medical equipment
- Medical Supplies: single use, disposable, and generally inexpensive (<$100 per item)
- Mortuary Operations: equipment and supplies needed for mass fatality management
- Pharmaceuticals: medications and fluids
- Training Equipment and Supplies.

Logistical equipment required to support medical or mortuary operations, but not directly related to patient care or medical support of personnel, such as PPE, communications equipment, generators, etc., is listed in other appropriate SEL sections. Where applicable, notes and linkages to non-medical logistical items are included with the SEL items of the Medical Section.

Mission-Specific SubLists

In 2008, the Medical Subgroup introduced a new cross-reference feature within the SEL by designating key items across all sections that would be useful in establishing a medical Point of Dispensing (POD). These items were indicated by the tag "* POD-List *" at the end of the Operating Considerations for each item chosen. This identifier was designed so that when using the on-line version of the SEL, users could immediately obtain a list of the more than 140 SEL items recommended for use in a POD.

The success of the "POD-List" in designating equipment across the SEL for a specific mission led to the creation of a second similar list. The IAB needed to designate a set of equipment for use in mortuary operations, and once again the equipment requirements spanned multiple sections of the SEL. Having completed a second "SubList", the ESG and HMRS SubGroups realized that they could also use this technique to retain data that would be lost with the removal of Selection Factors (see earlier discussion in SEL Introduction).

The result is a set of eight Mission-Specific SubLists that are maintained jointly by the two SubGroups:

- Point of Dispensing (POD): Items recommended for use in establishing a medical Point of Dispensing.
- Disaster Mortuary Operational Response Team (DMORT): Items recommended for use in DMORT operations.
- Basic Life Support (BLS): Items recommended for BLS as defined by the United States Department of Transportation National Standard Curriculum and routinely carried on BLS EMS response resources.
- Advanced Life Support (ALS): Items recommended for ALS, or "paramedic", as defined by the United States Department of Transportation National Standard Paramedic Curriculum and routinely carried on ALS EMS response resources.
- Pre-Hospital Mass Casualty: Items needed specifically to manage pre-hospital mass casualty events, but that may not routinely be used by pre-hospital care organizations or carried on BLS/ALS response resources.

- Hospital: Items recommended for use in the hospital environment.

- Public Health: Items used by public health authorities to prevent, detect, protect and respond to potential or actual public health threats or emergencies.

- Disaster: Items that should be stockpiled for mass casualty/disaster response situations.

These SubLists will be published in a separate report herein. However, *their greatest utility will be online,* where users can choose a specific SubList and obtain an immediate listing of all applicable mission-specific SEL items (go to www.iab.gov, and choose the menu item for "Interactive SEL").

Section Changes for 2010

In addition to routine updates and edits, work continued on refining the Mortuary Operations Section. Three new items were added to Mortuary Operations as noted below. In addition, one new item (Ondansetron) was added to the Gastrointestinal SubCategory of Pharmaceuticals.

Several pharmaceuticals were deleted in this edition, generally because they are being phased out in favor of drugs that are either more effective or less prone to side effects. They include Ribavirin, Streptomycin, Butorphanol, and Bismuth Products. Also, disposable ventilators were deleted from the Medical Supplies category, as the ventilator item in Medical Equipment is currently much more widely used.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
28	4	5

New Items:

09MY-01-SUPT	Kit, Mortuary Operations Support
09MY-02-BAGS	System, Encapsulating Body Storage
09MY-02-TRUK	Truck, Church (Casket)
09PH-06-ONDN	Ondansetron

Using the SEL Medical Section

The IAB has attempted to provide useful information in this section (to include linkages to other SEL sections) to help local, state, and federal organizations improve the safety aspects of their public health and medical response plans and procedures. Local and state public health and medical authorities should collaborate with other response partners in the review and modification of these recommendations for use in their organizations and jurisdictions. This collaboration should include protocols, operational procedures, standards of care, and other written documentation governing use of SEL items.

Community hazard and vulnerability analysis is an integral aspect of planning and procuring equipment, supplies, and pharmaceuticals. Consideration should be given to the full range of issues inherent to the procurement of equipment, pharmaceuticals, and supplies (i.e., interoperability, compatibility, funding limitations, maintenance, training, re-supply, storage, safety, etc.). Additional recommendations follow:

- Consider environmental factors during storage and response operations. Exposure to environmental extremes may impact potency, shelf life, and performance.

- Do comprehensive "power planning" to look at the power needs of your total response capability. Consider and plan for the custom batteries/power systems that will be required for most medical diagnostic and monitoring equipment. Pay particular attention to the combination of monitoring/ diagnostic equipment and environmental factors such as climate control, lighting, refrigeration, altitude, humidity, airborne dust/particulate matter, and information equipment/computer support. Include storage in facilities that have backup generator power sources, and other requirements to ensure 24x7 readiness of the equipment/batteries, etc.

- Be aware that certain supplies are regulated for bulk transportation. If you are moving large amounts of material (especially applicable to the Disaster and Hospital sections of the matrix), consult with a transportation/hazmat professional.

- Don't forget to incorporate federal resources such as Pre-positioned Equipment Program (PEP) Pods, the Strategic National Stockpile (SNS), and the CHEMPACK program into your local planning process. Also coordinate with local resources that receive support from federal funding.

- When selecting durable medical equipment as well as monitoring and diagnostic equipment, consider durability, appropriateness for field use, and whether the item is disposable or can be decontaminated.

- Remember to budget for the routine maintenance of monitoring and diagnostic equipment as specified by the manufacturers.

- Include contingencies for individuals with special needs (i.e., mobility impaired, hearing impaired, visually impaired, cognitively impaired, non-English speaking, pediatrics, elderly, medication dependent, aided by special escorts or animals, etc.), and others with pre-existing medical conditions.

- Consider Memoranda of Understanding (MOU)/Agreement (MOA) with hospitals and pharmacies for appropriate storage and management/regulation of medications and perishable items that must be kept in climate-controlled conditions. Consider MOUs with hospitals/biomedical engineering departments for preventive maintenance on biomedical equipment.

- Collaborate with community response partners. Share information and ask questions. Allow time to collect feedback and experiences from other users before purchasing equipment. The Responder Knowledge Base can also be used as a source of user opinion information.

- Consider requirements of regulatory agencies that monitor point-of-care or wave-form testing equipment (e.g., i-STATS (CLIA regulations), some urine tests (wave-form), and a few other point-of-care tests that would be appropriate for extended and protracted disaster care and surge capacity).

- Consider signage (bilingual) and other documentation forms/admission forms/etc, and health and medical screening tools (bilingual).

- Consider supplies and equipment necessary for mass fatality management.

- Consider veterinary and agricultural (food supply) requirements.

The Health, Medical & Responder Safety (HMRS) SubGroup is very interested in user feedback to improve the quality and usability of the Medical Section of the SEL. Please send comments to IAB@battelle.org, "Attention: IAB HMRS SubGroup".

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
ME - Medical Equipment 01 General			
09ME-01-ADMN	Equipment, Administrative	All-inclusive administrative and durable office support equipment to sustain medical branch operations.	
09ME-01-BAGM	Bag/Kit/Pack, Medical	Portable vessel that contains various medical supplies and equipment.	84, 132, 134
09ME-01-COTS*	Cots	Portable, lightweight structures that are easily assembled to accommodate patients in supine position. Typically used in shelter operations.	84, 132, 134
09ME-01-MCIK	Equipment/Kits, Multi-Casualty Incident (MCI)	Fully equipped kits that contain all equipment and materials to coordinate multi-casualty incidents, including (but not limited to) triage tags/supplies, clip boards and related forms, color-coded marking tape and tarps for treatment areas, medical branch position vests; field operation guide (FOG) for medical branch/MCI operations and local protocols.	84, 132, 134
09ME-01-PEDT	Tool, Pediatric Patient Assessment and Management	These tools allow for the rapid assessment of pediatric patients using length based assessment to determine equipment size and medication dosages.	88, 132, 134
09ME-01-SHEL*	Shelter, Medical	Easy to assemble structure to provide temporary shelter for patients and medical practitioners. Constructed of lightweight frame and/or inflatable.	133
ME - Medical Equipment 02 Airway Management			
09ME-02-AWMG	Equipment, Airway Management	Basic and advanced durable airway management equipment. Enables basic and advanced access to, and protection of, patient respiratory system.	1, 50, 55, 84, 88, 132, 134
09ME-02-ETCO	Monitor, End Tidal CO2, Quantitative/Qualitative	Monitor that allows for the quantitative and qualitative assessment of end tidal CO2 for patients that are breathing and/or being ventilated.	3, 88, 132, 134
09ME-02-OXYE	Equipment, Oxygen	Durable oxygen equipment (e.g., cylinders, regulators, manifolds, etc.) to facilitate the storage and delivery of medical oxygen.	84, 96, 97, 98, 132, 134
09ME-02-SUCT	Equipment, Suction Units	Negative pressure devices that enable suctioning of patient airway. Airway maintenance device. Various models, both powered and manually operated.	23, 50, 84, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
ME - Medical Equipment 02 Airway Management - *Continued*			
09ME-02-VENT*	Ventilators	Positive pressure ventilators that deliver regulated volumes of oxygen to patients requiring invasive respiratory support. Adult and pediatric applications. (Note: Includes previous item 09MS-02-VENT).	6, 88, 132, 134
ME - Medical Equipment 03 Diagnostic/Monitoring/Defibrillation			
09ME-03-BCNI	Monitor, Blood Chemistry, Non-Invasive	Non-invasive medical device used to monitor blood levels of substances such as methemoglobin and carboxyhemoglobin.	88, 132, 134
09ME-03-BPSL	Equipment, Blood Pressure	Manual and automated blood pressure equipment/products.	9, 84, 132, 134
09ME-03-DEAE	Defibrillator, Automated External	Simple device that enables rapid application, automated assessment, and (when necessary) delivery of corrective electrical impulse for lethal cardiac dysrythmias. Use of AED by practitioners with minimum or no training.	8, 12, 84, 132, 134
09ME-03-DEMP	Defibrillator/Cardiac Monitors/Pacing	Advanced cardiac monitoring/defibrillation/pacing devices for use by practitioners with advanced medical training.	8, 11, 12, 88, 132, 134
09ME-03-GLUM	Meters, Glucose	Simple device that rapidly analyzes blood glucose levels from capillary blood sample.	2, 55, 88, 132, 134
09ME-03-OTOP	Otoscope/ Ophthalmoscope	Devices used during patient assessment to facilitate the examination of the eyes and ears.	14, 43, 88, 132, 134
09ME-03-POXI	Oximeter, Pulse	Non-invasive device that monitors oxygen saturation levels in blood.	10, 84, 132, 134
09ME-03-STET	Stethoscope	Durable stethoscope to assist in patient care through audible assessments (auscultation). Durable and disposal models available.	4, 84, 132, 134
09ME-03-THER	Thermometer	Devices that enable assessment of patient temperature (all routes, including oral, axillary, tympanic, and rectal).	26, 27, 28, 84, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

Item Number	Title	Description	Standards[1]
ME - Medical Equipment 04 Immobilization			
09ME-04-SPIN	Equipment, Spinal Immobilization	Adjuncts that enable spinal immobilization of patients encountered in a variety of positions and situations.	84, 87, 132, 134
09ME-04-SPLT	Splints, Durable	Splints that enable all types of limb immobilization. All types and sizes.	18, 19, 84, 132, 134
ME - Medical Equipment 05 Patient Movement/Transfer			
09ME-05-GURN	Gurneys	Portable patient movement devices. Adjustable positions both vertical and horizontal. Durable medical equipment.	42, 84, 132, 134
09ME-05-LITR	Litters/Stretchers	Hand-carried patient transport devices.	41, 84, 132, 134
ME - Medical Equipment 06 Intravenous Equipment			
09ME-06-PUMP	Pump, Intravenous	A device to deliver accurate rates of IV fluids for both medication administration and volume infusion.	34, 88, 132, 134
ME - Medical Equipment 07 Public Health			
09ME-07-ISOL	Equipment, Patient Isolation	Equipment designed to maintain a continuous negative or positive pressure environment to isolate potentially contaminated or contagious patients requiring airborne precautions.	50, 109, 110, 132, 134
09ME-07-PCNT	Equipment, Pharmaceutical Counting	Equipment used to count and separate capsule or tablet forms of pharmaceuticals.	
09ME-07-PLBL	Equipment, Pharmaceutical Labeling	Equipment used to prepare and print labels for pharmaceuticals dispensed during emergency situations.	
09ME-07-TRAN	Equipment, Translation/ Accessibility	Equipment used to communicate emergency medical information between non-English speaking, hearing-impaired, or visually-impaired patients (or patient representatives) and emergency medical, hospital or public health providers.	84, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
MS - Medical Supplies 01 General			
09MS-01-ADMN*	Supplies, Administrative	All-inclusive administrative and non-durable office support supplies to sustain medical branch operations.	
09MS-01-ALPP	Pads, Alcohol Prep	Single-use alcohol prep pad to cleanse patient skin surface.	84, 132, 134
09MS-01-BAGB	Bag, Body, Heavy-Duty	Single-use body bag to contain deceased patients.	55, 84, 132, 134
09MS-01-KDEB	Kit, Debridement, and Supplies	Single-use, disposable kit to clean soft tissue injuries and surfaces.	55, 88, 132, 134
09MS-01-LNEN	Linens	Disposable and non-disposable linen products.	55, 84, 132, 134
09MS-01-MEDS*	Supplies, Medication Administration	Various disposable and non-disposable supplies to facilitate the administration of medications.	24, 35, 55, 88, 132, 134
09MS-01-NEAG*	Needles, Assorted	Various size/gauge needles to draw fluids and/or administer medications.	24, 55, 88, 132, 134
09MS-01-POVO*	Solutions and Applicators, Povidone Iodine	Various brushes and swabs saturated with Povidone Iodine to cleanse skin surface area.	55, 88, 132, 134
09MS-01-SCRN*	Screen, Privacy	Portable screen to provide privacy and visual screening during patient examination, triage, treatment, or stabilization.	133
09MS-01-SHER	Shears/Scissors, Medical	Standard medical shears to enable cutting of various materials.	40, 84, 132, 134
09MS-01-SHEY	Shield, Eye Irrigation Lens	Single-use, disposable eye lens with catheter to facilitate irrigation.	44, 84, 132, 134
09MS-01-SUTR	Suture, Various Sizes	Various size absorbable and non-absorbable sutures.	17, 55, 88, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
MS - Medical Supplies 01 General - *Continued*			
09MS-01-SUTS	Supplies and Materials, Suture	Single-use, disposable supplies or kits to support suturing procedures.	17, 55, 88, 132, 134
09MS-01-TNDP	Depressor, Tongue	Single-use, disposable device used for oral assessment.	36, 84, 132, 134
09MS-01-TTAG	Tags and Supplies, Triage	Single-use, disposable patient marking devices for use during multi-casualty triage management.	84, 132, 134
MS - Medical Supplies 02 Airway Management/Ventilation			
09MS-02-AWMG	Supplies, Airway Management	Airway management supplies, basic and advanced. Enables basic and advanced access to, and protection of, patient respiratory system. Non-durable supplies.	1, 84, 132, 134
09MS-02-BITE	Block, Bite	Disposable device designed for insertion between patient's teeth. Respiratory maintenance device.	15, 84, 132, 134
09MS-02-NATU	Tubes, Nasogastric	Single-use, disposable nasogastric tube.	16, 88, 132, 134
09MS-02-NEBU	Nebulizer	Nebulizer assembly to facilitate the administration of aerosolized medications and solutions.	5, 84, 88, 132, 134
09MS-02-OXYA	Supplies, Oxygen Administration	Oxygen administration supplies, basic and advanced. Enables basic and advanced access to, and protection of, patient respiratory system.	1, 84, 88, 132, 134
09MS-02-SUCT	Supplies and Adjuncts, Suction	Catheters, tubing, wands and miscellaneous connection devices for use with suction devices.	38, 50, 55, 84, 132, 134
09MS-02-THOR	Kit, Thoracostomy and Supplies	Self-contained kit to perform and support chest decompression.	24, 55, 88, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
MS - Medical Supplies 03 Infection Control			
09MS-03-BAGH	Bag, Biohazard	Variable size, disposable bags to contain materials soiled with infectious fluids/products.	55, 84, 132, 134
09MS-03-BIOD	Supplies, Biohazard Disposal	Various non-durable vessels to contain and manage materials soiled with biohazards.	55, 84, 132, 134
09MS-03-DSIN	Supplies, Disinfectant and Antiseptic	Commercial disinfectant and antiseptic products to clean skin and other surfaces.	55, 84, 88, 132, 134
09MS-03-GLVN	Gloves, Biomedical, Non-Sterile	Variable size, single-use examination gloves. Disposable, non-latex. Non-sterile.	37, 55, 84, 132, 134, 157
09MS-03-GLVS*	Gloves, Biomedical, Sterile	Various sizes, sterile biomedical gloves.	21, 55, 88, 132, 134
09MS-03-HYGP	Supplies, Personal Hygiene	Various skin disinfectant and hygiene supplies.	84, 132, 134
09MS-03-ISOS	Supplies, Body Substance Isolation	Body substance isolation supplies (masks, gowns, eye protection). Various isolation barriers to protect practitioners from exposure to infectious substances.	20, 50, 55, 84, 132, 134
MS - Medical Supplies 04 Bandages/Dressings/Tapes			
09MS-04-BAND	Bandages and Dressings	Variable size, disposable bandages and dressing to treat all types of soft tissue wounds. Non-durable absorbent products.	25, 55, 84, 132, 134
09MS-04-HSBN*	Bandages and Products, Hemostatic	Sterile bandages coated or impregnated with substances that enhance clotting and suppression of active bleeding, as well as other materials that perform a similar function.	22, 55, 84, 132, 134
09MS-04-TAPE	Tape, Adhesive	Various size adhesive medical tape.	31, 84, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

[*] Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
MS - Medical Supplies 05 Intravenous Therapy			
09MS-05-IVBG*	Bag, Intravenous Pressure Infusion	Pressure infusion device for use with intravenous solution bags to expedite fluid delivery.	32, 55, 88, 132, 134
09MS-05-IVSA	Supplies, Intravenous Administration	Various intravenous solutions and needle/catheter assemblies.	29, 30, 33, 55, 88, 132, 134
09MS-05-NEIO	Needles, Intraosseous Infusion	Various size/gauges to facilitate fluid/medication administration.	55, 88, 132, 134
09MS-05-SYRC*	Cartridge Injector, Syringe	Assembly that facilitates syringe use.	13, 55, 88, 132, 134
09MS-05-SYRG*	Syringe	Various size syringes, with and without built-in needles. For use in drawing and administering medications and solutions. Also used in injection and aspiration of air from some airway devices.	35, 55, 88, 132, 134
MS - Medical Supplies 06 Monitoring/Defibrillation			
09MS-06-PROB	Electrodes/Probes, Monitoring	Self-adhesive electrodes to facilitate electrical monitoring. Single-use, disposable.	45, 88, 132, 134
MS - Medical Supplies 07 Patient Movement/Transfer			
09MS-07-REST	Supplies/Systems, Patient Restraint	Multi-use patient restraints and systems; easy to apply with minimal training (including limb and torso restraints).	39, 84, 132, 134
MS - Medical Supplies 08 Immobilization			
09MS-08-SPIN	Supplies, Spinal Immobilization	Various devices (e.g., cervical collars, head immobilizers) to immobilize/stabilize the neck and spinal region.	84, 87, 132, 134
09MS-08-SPLT	Splints, Disposable	Splints that enable all types of limb immobilization. All types and sizes.	18, 19, 84, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
MS - Medical Supplies 09 Obstetrics			
09MS-09-KTOB	Kit, Obstetrical	Self-contained kit with supplies required to support obstetrical procedures.	55, 84, 132, 134
MY - Mortuary Operations 01 Kit, Fingerprinting Tools			
09MY-01-ANTH*	Kit, Anthropology Tools	Measurement and comparison models and tools for age and sex determination. [Note: Replaces and includes previous items 09MO-01-OBRD, 09MO-01-LITS, 09MO-01-TANT]	
09MY-01-DENT*	Kit, Odontology Tools	Tools and equipment used by forensic odontologists to conduct post mortem examination.	
09MY-01-DNAK*	Kit, DNA Tools	Equipment used to collect DNA samples from the deceased.	
09MY-01-EMBL*	Kit, Embalming Tools	Tools used to embalm and prepare human remains for transport.	
09MY-01-FPRN*	Kit, Fingerprinting Tools	Tools used to collect fingerprints from the deceased.	
09MY-01-PATH*	Kit, Pathology Tools	Tools and equipment used by forensic pathologists to conduct autopsy or examination by manipulating or removing bone or tissue as required. [Note: Replaces and includes items 09MO-01-BSAW, 09MO-01-CENT, 09MO-01-LITS, 09MO-1-MCRO, 09MO-01-MCRV, 09MO-01-RIBC, 09MO-01-SCAL, 09MO-01-SINK, 09MO-01-TABL, 01MO-01-TOOL]	
09MY-01-PHOT*	Kit, Photography Tools	Tools used to create photographic documentation of remains.	
09MY-01-SUPT*	Kit, Mortuary Operations Support	Includes miscellaneous equipment and supplies necessary to support mortuary operations such as buckets and basins, tables and chairs, wet/dry vacuum, rope, sifters, hot plate, truck seals, cleaning supplies, etc.	
09MY-01-XRAY*	Kit, Radiography Tools	Equipment used for obtaining full body radiographic images of the deceased. [Note: Replaces and includes item 09MO-01-LBOX]	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
MY - Mortuary Operations 02 Storage and Transport			
09MY-02-BAGS*	System, Encapsulating Body Storage	Bag or other sealing system designed to completely seal and contain all hazardous gases and fluids associated with the transport, handling and storage of human remains.	
09MY-02-BHST*	Hoist, Body	Cadaver lift designed for one or two persons to move a decedent in a confined area. [Note: Replaces item 09MO-02-BHST]	
09MY-02-RACK*	Racking, Lightweight, Portable	Portable lightweight racks for decedents to be used in temporary refrigerated areas such as tents or trailers. [Note: Replaces item 09MO-02-RACK]	
09MY-02-REFR*	Refrigerator, Multi-Body	Stand alone refrigerator units capable of storing multiple bodies to increase storage space in trailers or temporary morgues. [Note: Replaces item 09MO-01-REFR]	
09MY-02-TRUK*	Truck, Church (Casket)	Church truck, or casket truck. Wheeled device for movement of caskets.	
PH - Pharmaceuticals 01 General			
09PH-01-ADEN	Adenosine	Anti-dysrhythmic.	55, 88, 104, 132, 134
09PH-01-ALBU	Albuterol	Bronchodilator.	88, 104, 132, 134
09PH-01-AMIO	Amiodarone	Anti-dysrhythmic.	55, 88, 104, 132, 134
09PH-01-ANTA	Antacids	Antacid.	88, 104, 132, 134
09PH-01-ATVT	Ipratropium	Bronchodilator.	55, 88, 104, 132, 134
09PH-01-BCLM	Beclomethasone	Steroid, oral inhalant or nasal spray for respiratory disorders.	88, 104, 132, 134
09PH-01-CACL	Calcium Chloride	Electrolyte used in resuscitation settings.	55, 88, 104, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

PH - Pharmaceuticals
01 General - *Continued*

Item Number	Title	Description	Standards[1]
09PH-01-DEXT	Dextrose	Glucose compound for use in hypoglycemia.	88, 104, 132, 134
09PH-01-DIPH	Diphenhydramine	Antihistamine.	55, 88, 104, 132, 134
09PH-01-DOPA	Dopamine	Used in emergency setting to treat acute hypotension.	55, 88, 104, 132, 134
09PH-01-ELEC	Fluid, Electrolyte Replacement, Oral	Crystalloid solutions for Oral Rehydration Therapy (ORT).	88, 104, 132, 134
09PH-01-EPIA	Epinephrine, Auto-Injector	Epinephrine packaged in auto-injector.	55, 84, 104, 132, 134
09PH-01-EPIP	Epinephrine	Catecholamine, used in cardiac arrest, as a vasoconstrictor acute hypotension, as a bronchodilator and antispasmodic in bronchial asthma.	55, 84, 104, 132, 134
09PH-01-FURO	Furosemide	Diuretic.	55, 84, 104, 132, 134
09PH-01-GLUC	Glucagon	Anti-hypoglycemia agent.	55, 84, 104, 132, 134
09PH-01-LIDO	Lidocaine, all concentrations	Anti-dysrhythmic as well as analgesic properties.	55, 88, 104, 132, 134
09PH-01-MASU	Magnesium Sulfate	Electrolyte replacement, anticonvulsant, bronchodilator, anti-dysrhythmic.	55, 88, 104, 132, 134
09PH-01-METP	Methylprednisolone	Corticosteroid; bronchodilation and anti-inflammatory characteristics.	55, 88, 104, 132, 134
09PH-01-NTRO	Nitroglycerin	Nitrate; vasodilator and smooth muscle relaxant.	84, 104, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
[*] *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
PH - Pharmaceuticals 01 General - *Continued*			
09PH-01-OXYG	Oxygen	Oxygen.	84, 104, 132, 134
09PH-01-POLY	Polysporin Ointment	Antibiotic ointment.	88, 104, 132, 134
09PH-01-RING	Ringers Solution, Lactated	Crystalloid solution used for fluid replacement.	55, 88, 104, 132, 134
09PH-01-SALI	Saline Solution	Crystalloid solution used for fluid replacement.	84, 104, 132, 134
09PH-01-SISU	Silver Sulfadiazine Cream	Silver sulfadiazine, a sulfa drug, is used to prevent and treat infections of second- and third-degree burns.	88, 104, 132, 134
09PH-01-SOBI	Sodium Bicarbonate	Electrolyte. Useful in the management of crush syndrome.	55, 84, 104, 132, 134
09PH-01-TCOP	Tetracaine Ophthalmic	Ophthalmic anesthetic for use in eye injuries.	88, 104, 132, 134
09PH-01-THEO	Theophylline	Bronchodilator.	55, 88, 104, 132, 134
09PH-01-THIA	Thiamine	Vitamin.	55, 88, 104, 132, 134
09PH-01-WATR	Water, Sterile	Fluid solution; topical irrigation.	84, 104, 132, 134
PH - Pharmaceuticals 02 Analgesics/Sedatives			
09PH-02-ACET	Acetaminophen	Analgesic, anti-pyretic.	84, 104, 132, 134
09PH-02-ASA	Acetylsalicylic Acid	Anticoagulant; analgesic, anti-inflammatory; anti-pyretic.	84, 104, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
PH - Pharmaceuticals 02 Analgesics/Sedatives - *Continued*			
09PH-02-IBUP	Ibuprofen	Nonsteroidal anti-inflammatory agent; analgesic, anti-pyretic.	84, 104, 132, 134
09PH-02-KETO	Ketorolac	Nonsteroidal anti-inflammatory agent; analgesic.	55, 88, 104, 132, 134
09PH-02-MZLM	Midazolam	Sedative, anticonvulsant; benzodiazepine.	55, 88, 104, 132, 134, 184
PH - Pharmaceuticals 03 Antibiotics/Antiviral			
09PH-03-ADAM	Adamantines	Anti-viral.	88, 104, 132, 134
09PH-03-AMOX	Amoxicillin	Antibiotic.	88, 104, 132, 134
09PH-03-CEPH	Cephalexin	Antibiotic.	88, 104, 132, 134
09PH-03-CHLO	Chloramphenicol	Antibiotic.	88, 104, 132, 134
09PH-03-CPRO	Ciprofloxacin	Antibiotic.	88, 104, 132, 134
09PH-03-DOXY	Doxycycline	Antibiotic.	88, 104, 132, 134
09PH-03-ERYT	Erythromycin	Antibiotic.	88, 104, 132, 134
09PH-03-GENT	Gentamicin	Antibiotic.	88, 104, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
[*] *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
PH - Pharmaceuticals 03 Antibiotics/Antiviral - *Continued*			
09PH-03-MZOL*	Metronidazole	Antibiotic.	88, 104, 132, 134
09PH-03-NEUR	Neuraminidase Inhibitors	Anti-viral.	88, 104, 132, 134
09PH-03-OPHE	Ophthalmic Erythromycin	Ophthalmic antibiotic.	88, 104, 132, 134
09PH-03-OPHG	Ophthalmic Gentamicin	Ophthalmic antibiotic.	88, 104, 132, 134
09PH-03-TRIM	Trimethoprim/ Sulfamethoxazole	Antibacterial agent.	88, 104, 132, 134
PH - Pharmaceuticals 04 Narcotics/Narcotic Antagonists			
09PH-04-MOSU	Morphine Sulfate	Narcotic analgesic.	55, 88, 104, 132, 134, 184
09PH-04-NALX	Naloxone	Narcotic antagonist.	55, 88, 104, 132, 134
PH - Pharmaceuticals 05 Antidote			
09PH-05-AMNI	Amyl Nitrite	Vasodilator. A component of the Cyanide Antidote Kit.	88, 104, 132, 134
09PH-05-ATSF	Atropine Sulfate	Anticholenergic. Antidote for organophosphate and nerve agent exposure.	55, 88, 104, 132, 134
09PH-05-CALG	Calcium Gluconate	Electrolyte used in acute cases for hyperkalemia, hypocalcaemia, or calcium antagonist overdose. A topical preparation is available for use in the treatment of hydrofluoric acid burns.	55, 88, 104, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

PH - Pharmaceuticals
05 Antidote - *Continued*

Item Number	Title	Description	Standards[1]
09PH-05-CANA	CANA Auto-Injector	Diazepam packaged in an auto-injector. For use in the management of nerve agent and organophosphate exposure.	55, 84, 104, 132, 134, 184
09PH-05-CHAR	Charcoal, Activated	Used in emergency setting to treat oral ingestion poisoning/overdoses.	84, 104, 132, 134
09PH-05-COBL	Hydroxocobalamin	Vitamin analog. Cyanide antidote.	55, 88, 104, 132, 134
09PH-05-CYKT	Kit, Cyanide Antidote	Kit includes Sodium Nitrite, Sodium Thiosulfate and Amyl Nitrite inhalant or other FDA-approved products for cyanide poisoning.	55, 88, 104, 132, 134
09PH-05-DTPC	Ca-DTPA, Pentetate Calcium Trisodium Injection	Radiation treatment drug for treating internal contamination from Plutonium, Americium, and Curium.	55, 88, 104, 132, 134
09PH-05-DTPZ	Zn-DTPA, Pentetate Zinc Trisodium Injection	Radiation treatment drug for treating internal contamination from Plutonium, Americium, and Curium.	55, 88, 104, 132, 134
09PH-05-METB	Methylene Blue	Used in emergency setting for hemoglobinopathies.	55, 88, 104, 132, 134
09PH-05-NAAK	Nerve Agent Antidote Kit (NAAK)	Pralidoxime chloride autoinjector - 2-PAM; Atropine autoinjector, or a combination autoinjector.	55, 88, 104, 132, 134
09PH-05-POTI*	Potassium Iodide	Used in radiation emergency - protects the thyroid in a radiation emergency involving radioiodines.	88, 104, 132, 134
09PH-05-PRAL	Pralidoxime Chloride	Used in nerve agent and organophosphate exposures. Component of Nerve Agent Antidote Kit (NAAK).	55, 88, 104, 132, 134
09PH-05-PRUS*	Prussian Blue	Used in emergency setting for radiation exposures involving cesium.	88, 104, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
PH - Pharmaceuticals 05 Antidote - *Continued*			
09PH-05-SOTH	Sodium Thiosulfate	Used in the treatment of cyanide poisoning; a component of cyanide antidote kits.	55, 88, 104, 132, 134
PH - Pharmaceuticals 06 Gastrointestinal (GI)			
09PH-06-GRAN	Gransetron	Antinauseant and antiemetic.	88, 104, 132, 134
09PH-06-LOPE	Loperamide	Antidiarrheal agent.	88, 104, 132, 134
09PH-06-ONDN*	Ondansetron	Antiemetic	88, 104, 132, 134
09PH-06-PHNG*	Promethazine	Antiemetic.	88, 104, 132, 134
PH - Pharmaceuticals 07 Anticonvulsant			
09PH-07-DIAZ	Diazepam	Anticonvulsant (may be used as part of the treatment for exposure to nerve agents.)	55, 88, 104, 132, 134, 184
09PH-07-FOSP	Fosphenytoin	Anticonvulsant.	55, 88, 104, 132, 134
09PH-07-LORA	Lorazepam	Sedative; antianxiety agent; benzodiapine.	55, 88, 104, 132, 134, 184
09PH-07-PHNT	Phenytoin	Anti-convulsant.	55, 88, 104, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 9 – MEDICAL

Item Number	Title	Description	Standards[1]
TR - Training 01 Equipment			
09TR-01-CSIM	Equipment, Training/ Casualty Simulation	Life-like human body replicas that enable medical practitioners to train in various scenarios.	84, 132, 134
09TR-01-MKIT	Supplies, Moulage	Moulage supplies include prosthetics, makeup, and other materials used to simulate wounds/injuries for training/exercise purposes.	84, 132, 134
09TR-01-SAIT	Simulator, Auto Injector, Training	Training simulator for auto injectors such as CANA and NAAK.	84, 132, 134

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 10 – POWER

Overview

Early editions of the SEL included multiple references to power-related items such as batteries and generators throughout the various sections. This section was created to consolidate those references and eliminate redundancy. By maintaining a unique section for power, the IAB hopes to remind readers that the availability of power is a significant consideration in planning across all areas.

The Power section includes only three sub-sections: Batteries and Power Cells, Generators, and Other Power-Related Equipment. Its inclusion as a separate section should increase awareness of power requirements as the number and type of electronic equipment items continues to increase in virtually every section of the SEL. Readers are encouraged to look across the applicable items in other SEL sections and consider the requirements for batteries (number, type, service life, shelf life, etc.), generators, power filtering equipment, and other power-related items without which critical equipment will cease to function.

In the aftermath of disasters such as Hurricane Katrina and the January 2007 Midwest (Saint Louis) ice/wind storms, one of the salient lessons learned was the difficulty of recharging batteries in an environment characterized by widespread power outages. As a result, many response organizations are mandating that some critical equipment be capable of using commercially available disposable batteries either as a primary or alternate power source (e.g., an alkaline battery pack that can be used in place of a rechargeable NiCad battery). Where applicable, comments regarding the need for special power requirement such as custom batteries will be noted in the Operating Considerations field of equipment in other SEL sections.

One particularly noteworthy issue has been mentioned here in past versions of the SEL, and unfortunately still requires reinforcement. Readers are encouraged to emphasize generator safety and recognize the dangers of carbon monoxide poisoning and electrocution to the general public during disasters that cause power outages. Every year, and despite multiple warnings, many lives are lost due to individuals running generators in or near their homes. Carbon monoxide is an odorless and colorless gas that kills! Also, by inappropriately wiring generators directly into a building or residence (instead of plugging appliances into the generator), severe injuries/fires/damage can occur when power is restored.

Section Changes for 2010

There were no changes in this section for 2010.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
0	0	0

SECTION 10 – POWER

Item Number	Title	Description	Standards[1]
BC - Batteries and Power Cells			
10BC-00-BATT	Batteries, All Types, Sizes	Batteries for all recommended equipment. Types including, but not limited to Alkaline, Nickel-Cadmium (Ni-CAD), Nickel Metal Hydride (NiMH), Lithium (Li-Ion). Form factors such as AA, AAA, C and D cells, 9-Volt, Clamshell.	
10BC-00-FCEL	Cells, Fuel	Fuel Cells.	
10BC-00-SOLR	Chargers	Including but not limited to solar, natural gas, shore power, etc.	
GE - Generators			
10GE-00-GENR	Generators	Generators, varying types and sizes, including gasoline, diesel, propane, natural gas, alternator, gas turbine powered devices, etc.	131
PE - Other Power-Related Equipment			
10PE-00-BCON	Conditioners, Battery	Battery conditioners.	
10PE-00-GFCI	Equipment, Ground Fault Circuit Interruption	Portable, high-reliability, all electronic device used to protect responders from electrocution by interrupting any unintentional electrical path between a source of current and a grounded surface when using electrical equipment at an incident scene.	131
10PE-00-INVT	Inverters	Equipment for DC to AC conversion.	131
10PE-00-PCDS	System, Power Conditioning	Systems that provide protection against power spikes, surges, and momentary drops so that serviced equipment receives "clean" power.	131
10PE-00-PTSW	Switch, Power Transfer	Switch for power output transfer to support generator maintenance and fueling.	131
10PE-00-RECT	Rectifiers	Equipment for AC to DC conversion.	131
10PE-00-REEL	Reels, Electric Cord	Electric cord reels.	131
10PE-00-UPS	Supply, Uninterruptible Power (UPS)	Systems that compensate for loss of power to serviced equipment for some period of time. May include short-duration battery devices, or standby generator devices for longer duration.	

SECTION 11 – REFERENCE MATERIALS

Overview

This section was originally created in the Spring 2004 edition to highlight reference documents previously included under Operational Equipment. However, as the section evolved, it conflicted somewhat with the IAB's philosophy of making generic recommendations rather than listing specific product/brand names. Using product names, particularly in the reference database section, was unfair to vendors with comparable products even if they could be listed the following year.

In 2008, this section was replaced with three generic items:

- CBRNE References
- Field Expedient References
- Reference Databases.

These three items convey the overall intent of the IAB in recommending that references of these types be obtained as part of the recommended list of items need for all-hazards response. Examples of published references (books, pocket guides, etc.) are now listed in bibliographical format in a separate List of References, which appears at the end of this book.

Section Changes for 2010

In prior years, the FEMA AEL has included an item in this section to cover reference materials for non-CBRNE incidents. Given the evolution of the SEL to an all-hazards context, a corresponding item has been added to the SEL, and the name of the section has been changed to "Reference Materials" to reflect the inclusion of both CBRNE and non-CBRNE references.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
0	1	0

New Items:

11RE-00-RFNC   Reference Materials, Non-CBRNE

SECTION 11 – REFERENCE MATERIALS

Item Number	Title	Description	Standards[1]
RE - References			
11RE-00-RFCB	References, CBRNE	Publications and other materials that provide educational or operational information useful in the planning and execution of response to CBRNE incidents.	
11RE-00-RFDB	Databases, Reference	Databases containing chemical information (properties, physical characteristics, decontamination information), modeling tools, medical and first aid information, blast radii, transport labeling, or other information useful in all-hazards incident response, and designed for access through a handheld, notebook, or desktop computer. Includes centralized databases designed for remote access as well as databases incorporated into mobile systems.	
11RE-00-RFEX	References, Field Expedient	Publications or other reference material suitable for use at the scene of an incident or during preplanning, training, and exercise development.	
11RE-00-RFNC*	Reference Materials, Non-CBRNE	Publications and other materials that provide educational or operational information useful in the planning and execution of response to non-CBRNE mass casualty incidents.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 12 – INCIDENT RESPONSE VEHICLES

Overview

This section was created in 2007 to improve the alignment of the SEL with the DHS Authorized Equipment List (AEL). It contains multiple vehicle types, including trailers for water and equipment.

Section Changes for 2010

The only change in this edition is the title of the section. Previously, this section was entitled "CBRNE Incident Response Vehicles." Noting the evolution of the SEL to an all-hazards context, and given the utility of these vehicles in non-CBRNE mass casualty incidents, the Equipment SubGroup has removed "CBRNE" from the title.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
0	0	0

SECTION 12 – INCIDENT RESPONSE VEHICLES

Item Number	Title	Description	Standards[1]
TR - Trailers			
12TR-00-H2OT	Trailer, Water/Source	Water trailers (potable and non-potable) with distribution system and pump.	
12TR-00-MOVR	Mover, Prime, for Equipment/Water Trailers	A vehicle used to tow equipment trailers, such as a semi-trailer tractor. It would be used with items such as the trailers in 12TR-00-TEQP and 12TR-00-H2OT.	
12TR-00-TEQP	Trailer, Equipment	Trailers for transport of equipment to an incident or training site.	
VE - Vehicles			
12VE-00-ABUS	Vehicle, Mass Casualty Transport	Specialized vehicles such as "Ambulance Buses" to transport stretcher-borne patients during a mass-casualty event. Includes retrofit kits to convert existing vehicles into mass casualty transports.	90, 126
12VE-00-CMDV	Vehicle, Command, Mobile	Mobile command vehicles for use at incident scene.	
12VE-00-MISS	Vehicle, Specialized Mission, CBRNE	Specialized vehicles designed to support specific CBRNE mission area requirements. Examples include deployment vehicles, tactical intervention vehicles, hazmat units, communications units, bomb response units, mobile morgue units, and special transport units such as all-terrain vehicles (ATVs), 2-wheeled personal transports for fully suited bomb technicians, and robot trailers designed to accommodate special mission equipment and accessories.	
12VE-00-SPEC	Vehicle, Specialized Emergency Management	Specialized vehicles for emergency management operations. This category includes special-purpose vehicles for the transport of response equipment and personnel to incident sites which may have limited or restricted access as a result of an emergency or disaster.	
12VE-00-VHCL	Vehicle, Commercial	Commercial vehicles, vans, SUVs, flat bed and panel trucks for personnel transportation and equipment movement.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 13 – TERRORISM INCIDENT PREVENTION EQUIPMENT

Overview

This section was created in 2007 to improve the alignment of the SEL with the DHS Authorized Equipment List (AEL). It also recognizes that although the SEL is response-oriented, there is considerable overlap with the "prevent" mission.

Section Changes for 2010

Two minor changes were included in this edition, including a title change in Item 13LE-00-SURV. No additions or deletions were made.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
2	0	0

SECTION 13 – TERRORISM INCIDENT PREVENTON EQUIPMENT

Item Number	Title	Description	Standards[1]
IT - Information Technology			
13IT-00-ALRT*	System, Alert/Notification	Alert and notification equipment that allows for real-time dissemination of information and intelligence among responders via equipment such as cellular phones, pagers, text messaging, etc.	99
13IT-00-DACQ	Data Acquisition	Software for data collection and information / intelligence gathering, including data mining and search tools that support inferential analysis, including trend analysis.	
13IT-00-DEXC	Data Exchange and Interoperability	System or software designed to facilitate the exchange and interoperability of data on extramural or legacy systems such as databases, dispatch systems, records management systems, and other systems containing data useful in terrorism incident prevention.	77, 78, 101, 102, 103
13IT-00-DFSN	Data Fusion/Synthesis	Software, system or suite for accepting disparate inputs and producing organized information. May use multiple sensor inputs to develop a situational picture, and/or multiple inputs from different intelligence sources to create a correlated set of accessible data.	
13IT-00-FACE	Software, Facial Recognition	Facial recognition software for access control, identification of criminal actors (IFF), etc.	69, 77, 78
13IT-00-SGNT	Software, Investigative, Signals Intelligence	Investigative software for collating and analyzing data from signals intelligence such as Pen Registers and wiretap management tools.	
LE - Law Enforcement Equipment			
13LE-00-SURV*	Equipment, Surveillance	Surveillance equipment and related accessories, including by not limited to: audio, data, and visual equipment. Includes electronic equipment such as Pen registers (equipment capable of capturing incoming and outgoing phone numbers, along with the duration of calls, without listening to the actual conversations). Also includes equipment designed to extract information from personal digital assistants (PDAs) and cellular devices such as cellular phones and messaging devices.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 14 – PHYSICAL SECURITY ENHANCEMENT EQUIPMENT

Overview

This section was created in 2007 to improve the alignment of the SEL with the DHS Authorized Equipment List (AEL). It contains items used to enhance the physical security of buildings and other infrastructure assets. These equipment items, when deployed, mitigate either the threat of an incident or its effects, and responders utilize or interact with many of these items in the course of response.

Section Changes for 2010

No changes were made to this section in 2010.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
0	0	0

SECTION 14 – PHYSICAL SECURITY ENHANCEMENT EQUIPMENT

Item Number	Title	Description	Standards[1]
EX - Explosion Protection			
14EX-00-BCAN	Receptacles, Trash, Blast-Resistant	Blast-resistant trash receptacles.	95
14EX-00-BSIR	Systems, Building, Blast/Shock/Impact Resistant	Systems to mitigate damage from blasts, shocks, or impacts, such as column and surface wraps, breakage/shatter resistant glass, window wraps, and deflection shields.	
SW - Surveillance, Warning, Access/Intrusion Control 01 General			
14SW-01-ALRM	Systems/Sensors, Alarm	Systems and standalone sensors designed to detect access violations or intrusions using sensors such as door/window switches, motion sensors, acoustic sensors, seismic, and thermal sensors. May also include temperature sensors for critical areas.	
14SW-01-ASTN	Network, Acoustic Sensor Triangulation	A network consisting of some number of deployed acoustic sensors and one or more processing nodes for data integration and analysis. Such networks can be "tuned" to one or more ranges of frequencies to detect sounds such as gunshots, heavy weapons discharge, explosions, MANPAD launches, vehicle noises, etc., and utilize acoustic triangulation to provide accurate location data. Such networks can be wired, wireless, or hybrid, and are capable of operation near critical infrastructure assets or in wide areas.	
14SW-01-DOOR	Doors and Gates, Impact Resistant	Reinforced doors and gates with increased resistance to external impact for increased physical security.	
14SW-01-EXTM	System, Fire Extinguisher Monitoring	System for monitoring the presence and inflation pressure of fixed-location fire extinguishers to ensure that they are usable and are not stolen for possible misuse.	
14SW-01-LITE	Lighting, Area, Fixed	Fixed high-intensity lighting systems for improved visibility in areas such as building perimeters and surveillance zones.	
14SW-01-PACS	System, Physical Access Control	Locking devices and entry systems for control of physical access to facilities.	
14SW-01-SIDP	Systems, Personnel Identification	Systems for positive identification of personnel as a prerequisite for entering restricted areas or accessing information systems.	107, 177
14SW-01-SIDV	Systems, Vehicle Identification	Systems for identification of vehicles, ranging from decals to radio frequency identification (RFID) or other transponder devices.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
[*] *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 14 – PHYSICAL SECURITY ENHANCEMENT EQUIPMENT

Item Number	Title	Description	Standards[1]
SW - Surveillance, Warning, Access/Intrusion Control 01 General - *Continued*			
14SW-01-SNSR	Sensors/Alarms, System and Infrastructure Monitoring, Standalone	Standalone sensors/alarms for use on critical systems or infrastructure items (security systems, power supplies, etc.) to provide warning when these systems fail or are near failure.	
14SW-01-VIDA	Systems, Video Assessment, Security	Camera-based security systems utilizing standard, low light, or infrared technology.	
14SW-01-WALL	Barriers: Fences; Jersey Walls	Obstacles designed to channel or halt pedestrian or vehicle-borne traffic in order to protect a physical asset or facility.	
SW - Surveillance, Warning, Access/Intrusion Control 02 Waterfront			
14SW-02-HSCN	Equipment, Hull Scanning	Devices or systems used to scan ship hulls for attached devices.	
14SW-02-RADR	Systems, Radar	Scanning systems for detection of objects such as vessels, personnel, and other objects.	
14SW-02-SONR	Systems, Sonar	Includes several different types of underwater sound wave imaging: Imaging Sonar: A high-frequency sonar that produces video-like imagery using a narrow field of view. The sonar system can be pole-mounted over the side of a craft or hand-carried by a diver. Scanning Sonar: Consists of smaller sonar systems that can be mounted on tripods and lowered to the bottom of the waterway. Scanning sonar produces a panoramic view of the surrounding area and can cover up to 360 degrees. Side Scan Sonar: Placed inside of a shell and towed behind a vessel. Side scan sonar produces strip-like images from both sides of the device. 3-Dimensional Sonar: Produces 3-dimensional imagery of objects using an array receiver.	
14SW-02-VBAR	Barriers, Vessel	Deployable, modular systems for restricting the movement of vessels.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 15 – INSPECTION AND SCREENING SYSTEMS

Overview

This section was created in 2007 to improve the alignment of the SEL with the DHS Authorized Equipment List (AEL). It contains detection items used primarily for inspection and screening purposes. While primarily preventive, in some cases these items may be deployed in the course of response (for example, in an attempt to locate and disarm secondary devices).

Section Changes for 2010

No changes were made to this section in 2010.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
0	0	0

SECTION 15 – INSPECTION AND SCREENING SYSTEMS

Item Number	Title	Description	Standards[1]
IN - Inspection Systems			
15IN-00-RADR	Radar, Ground/Wall Penetrating	Radar systems designed to penetrate walls or ground to allow detection of hidden objects.	
SC - Screening Systems			
15SC-00-PMON	Monitors, Portal	Systems to scan vehicles/cargo for radioactive content. Various sizes for vehicles, packages (large and small) and pedestrians. Does not identify radionuclide. DIQCode: [D,Q]	119
15SC-00-PPSS	Systems, Personnel/ Package Screening	Fixed systems such as walk-through magnetometers and conveyor-belt x-ray systems used to screen personnel and packages for hazardous materials/devices.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] Use numbers given to refer to Standards List at the end of this document.
* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 16 – RESERVED

[This section corresponds to the AEL's *Agricultural Terrorism Prevention, Response, and Mitigation Equipment* section. The Equipment SubGroup is working with FEMA GPD to develop items for inclusion in the corresponding SEL section. The section number is reserved to maintain the section number correspondence of the remaining sections.]

SECTION 17 – CBRNE PREVENTION AND RESPONSE WATERCRAFT

Overview

This section was created in 2007 as part of a water operations initiative. In addition to new items in Sections 1 and 3, watercraft were added to the SEL for the first time. Because the AEL had an existing section for watercraft, the SubGroup placed their new watercraft items in a corresponding Section 17 and used the same title as the AEL.

Section Changes for 2010

This edition contains only one minor edit in the Dive Boat Features.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
1	0	0

SECTION 17 – CBRNE PREVENTION AND RESPONSE WATERCRAFT

Item Number	Title	Description	Standards[1]
WC - Watercraft			
17WC-00-BOAT	Watercraft, CBRNE Prevention and Response	Surface boats or vessels with appropriate specialized equipment, designed to perform prevention and response missions within port areas, waterways, dams, reservoirs, rivers, lakes, etc.	
17WC-00-DBOT*	Boat, Dive	Specialized boat to serve as base for dive operations.	
17WC-00-WCMA	Modifications/ Accessories, Watercraft	Watercraft modifications such as propeller guards.	
17WC-00-WCPS	Watercraft, Patrol/ Surveillance	Patrol watercraft with surveillance and light interdiction capability.	
17WC-00-WCSR	Watercraft, Search and Rescue	Watercraft designed for use in search and rescue operations, including both inflatable and rigid designs.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 18 – CBRNE AVIATION EQUIPMENT

Overview

This section was created in 2007 to address the need for aviation assets in the SEL. Because the AEL had an existing section for aviation equipment, the SubGroup placed their new Aircraft CBRNE Equipment and Upgrades item in a corresponding Section 18, and used the same title as the AEL.

Section Changes for 2010

This edition contains only one change, adding Operational Considerations for Aircraft involved in over-water operations.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
1	0	0

SECTION 18 – CBRNE AVIATION EQUIPMENT

Item Number	Title	Description	Standards[1]
AC - Aircraft			
18AC-00-ACFT*	Aircraft, CBRNE	Special-purpose fixed-wing aircraft and helicopters for CBRNE terrorism prevention, response, mitigation and/or remediation.	47, 48, 50, 133
18AC-00-ACMC	Equipment/Kits, Aircraft Mass Casualty Conversion	Equipment used to convert and use non-medical aircraft (fixed or rotary-wing) for patient transport.	93, 94
18AC-00-ACUP	Equipment and Upgrades, Aircraft, CBRNE	Specialized navigational, communications, safety, and operational equipment necessary for CBRNE prevention, response and/or recovery, such as aviation GPS system, air-ground communications system, night vision kit, observation platform, fast-rope gantry, air-safety containers, etc.	133

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] *Use numbers given to refer to Standards List at the end of this document.*

* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 19 – CBRNE LOGISTICAL SUPPORT EQUIPMENT

Overview

This section was created in 2007 to improve the alignment of the SEL with the DHS Authorized Equipment List (AEL). Because the AEL had an existing section for logistical support equipment, the SubGroup approved separating this equipment from the operational and search and rescue equipment in Section 3.

Section Changes for 2010

Only one change is included in this edition, adding decontamination to the list of operating considerations for Collective Protective Systems.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
1	0	0

SECTION 19 – CBRNE LOGISTICAL SUPPORT EQUIPMENT

Item Number	Title	Description	Standards[1]
GN - General			
19GN-00-BGPK	Bags/Packs	Carry bags or wearable packs for storage and transportation of personal gear and equipment, personal protective equipment, and miscellaneous equipment.	
19GN-00-BIVY	Bags, Bivy/Sleeping	Bags and bivys - individual sleeping systems, including storage bag or "stuff sacks".	
19GN-00-COMP	Compressors and Systems, Breathing Air	Air compressor or cascade system suitable for refilling self-contained breathing apparatus (SCBA) or self-contained underwater breathing apparatus (SCUBA) cylinders. Output must be compliant with NFPA 1989, Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection.	50, 72, 153
19GN-00-FANE	Fan, Intrinsically Safe, Exhaust	Intrinsically safe exhaust fan for ventilation of confined spaces or enclosed areas with contaminated atmospheres.	53, 131, 133, 141
19GN-00-FANV	Fan, Cooling/Heating/ Ventilation	For personnel and decontamination tent use. Not for use in explosive environments.	47, 133
19GN-00-FUEL	Container, Fuel Storage	Portable and transportable containers for various fuels, including gasoline, diesel, etc.	65, 68
19GN-00-H2OD	System, Water Distribution	Mobile systems and equipment for the transport and distribution of potable or non-potable water. Includes pumping systems, piping, and storage containers with spigots or other facilities for filling personal containers.	
19GN-00-H2OP	System, Water Purification	Portable system for producing potable water, with integrated pump; battery or AC powered.	
19GN-00-HSSF	Housing, Subsistence and Sanitation	Housing for response forces (e.g. tents, shelters, rehab trailers), subsistence and sanitation (field support).	
19GN-00-OPCK	Overpack	Overpack container, used to consolidate a load or facilitate handling of packages or cargo.	57, 64, 66, 133
19GN-00-RFGR	Refrigerator/Freezer	Refrigerator/freezer for maintaining temperature control (cooling) for pharmaceuticals, vaccines, reagents, samples, or evidence.	131
19GN-00-RFMN	Monitors/Recorders, Temperature and Humidity	Devices used to continuously monitor the temperature and/or humidity of a storage area or refrigeration device to ensure that contents do not exceed storage limits.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.
[1] *Use numbers given to refer to Standards List at the end of this document.*
* *Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.*

SECTION 19 – CBRNE LOGISTICAL SUPPORT EQUIPMENT

Item Number	Title	Description	Standards[1]
MH - Material Handling Equipment			
19MH-00-BULK	Equipment, Bulk Material Handling	Equipment for movement of bulk material, including pallets, pallet lifting and movement devices such as portable forklifts, dollies, rigging, cargo netting, and loading ramps.	
19MH-00-CART	Cart, Field	Field cart for transporting tools, equipment, or personnel.	
19MH-00-CHMS	Containers, Hazardous Material Shipping	Hazardous material shipping containers.	64, 65
19MH-00-CONT	Containers, Storage	Storage containers.	
19MH-00-CPAC	Carts, Portable Air Cylinder	Portable air cylinder carts for carrying spare breathing air cylinders to forward locations.	
19MH-00-CPGC	Carts, Portable Compressed Gas Cylinder	Portable carts for transporting gas cylinders (not breathing air) to forward locations.	
SS - Shelter Systems			
19SS-00-SHEL	Systems, Shelter, Rapid Deployment	Rapidly deployable shelter systems, hardwall or softwall (command and control, triage, evidence protection, etc.).	
19SS-00-SHEN	System, Environmental Control	Environmental control system for shelters (heating, air conditioning, humidity control).	
19SS-00-SHEP*	System, Collective Protective	An integrated system for providing collective protection against radiological, chemical, and biological threats.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 20 – INTERVENTION EQUIPMENT

Overview

This section was created in 2007 to improve the alignment of the SEL with the DHS Authorized Equipment List (AEL). This section was restructured in 2009 to include a new category for Crime Scene Processing Equipment (20CS). The previous fingerprint processing item (20FP-00-AFIS) was moved into this category as 20CS-01-AFIS. Evidence Bags (formerly 03OE-01-BGEV) were moved into this category and incorporated into a new item 20CS-02-EVID entitled Systems and Equipment, Evidence Collection. Two new items were added in 2009 for Equipment and Supplies, Crime Scene Processing, and Equipment, Ultraviolet Light Detection. The result was a greatly enhanced set of law enforcement equipment in recognition of the evidence collection mission associated with any WMD or CBRN incident. This section is likely to expand in 2011 as the IAB focuses on inclusion of critical law enforcement equipment.

Section Changes for 2010

This edition contains only minor edits.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
2	0	0

SECTION 20 – INTERVENTION EQUIPMENT

Item Number	Title	Description	Standards[1]
CS - Crime Scene Processing Equipment 01 Fingerprint Processing Equipment			
20CS-01-AFIS*	Equipment, Fingerprint Processing and Identification	Equipment for fingerprint processing, including Automated Fingerprint Identification System (AFIS) interface equipment. (This item replaces item 20FP-00-AFIS)	77, 78
CS - Crime Scene Processing Equipment 02 Other Crime Scene Processing Equipment			
20CS-02-EVID	Systems and Equipment, Evidence Collection	Mobile evidence collection and storage systems, including bags, canisters, or other containers for evidence storage and preservation.	133
20CS-02-SUPP*	Equipment and Supplies, Crime Scene Processing	Equipment and consumable supplies for crime scene processing activities including latent fingerprint collection, evidence collection, and documentation.	125
20CS-02-UVLT	Equipment, Ultraviolet Light Detection	Crime scene processing equipment utilizing various frequencies of UV light to identify fingerprints, gunshot residue, blood spatter, and other trace evidence.	125
TE - Tactical Entry Equipment			
20TE-00-NTRY	Equipment, Tactical Entry	Tactical entry equipment. Does not include explosive material or weapons.	

Note: Features, Operating Considerations, and Training Considerations can be found on the enclosed CD-ROM, or online at www.iab.gov.

[1] Use numbers given to refer to Standards List at the end of this document.

* Item has been moved or changed in this edition. Note that changes may be in fields that are only viewable on CD-ROM or online.

SECTION 21 – OTHER AUTHORIZED EQUIPMENT

Overview

This section was created in 2007 to improve the alignment of the SEL with the DHS Authorized Equipment List (AEL). Even though it is entitled "Other Authorized Equipment", this section is in fact used by the AEL for items such as consulting services, shipping charges, and sales tax that do not fit in any of the normal equipment categories. Since maintenance packages/contracts are also not "equipment" per se, the IAB chose to move the maintenance item from the Operational Equipment section into Section 21. That is currently the only SEL item in this section.

Section Changes for 2010

There were no changes in this edition.

Changes are shown in the Impact Summary below, and any new items are listed. Changed/moved items are annotated in the actual item listing.

2010 SEL Section Impact Summary		
Changes	Additions	Deletions
0	0	0

SECTION 21 – OTHER AUTHORIZED EQUIPMENT

Item Number	Title	Description	Standards[1]
GN - General			
21GN-00-MAIN	Maintenance	Vehicle and equipment maintenance packages.	

MISSION-SPECIFIC SUBLISTS

The following SEL items have been assigned to one or more Mission-Specific SubLists as indicated below. SubList definitions are as follows:

- **Point of Dispensing (POD):** Key items recommended in establishing a medical Point of Dispensing.

- **Basic Life Support (BLS):** BLS as defined by the United States Department of Transportation National Standard Curriculum and routinely carried on BLS EMS response resources.

- **Advanced Life Support (ALS):** ALS, or "paramedic", as defined by the United States Department of Transportation National Standard Paramedic Curriculum and routinely carried on ALS EMS response resources.

- **Pre-Hospital Mass Casualty:** Items needed specifically to manage pre-hospital mass casualty events, but that may not routinely be used by pre-hospital care organizations or carried on BLS/ALS response resources.

- **Hospital:** Items routinely used in the hospital environment.

- **Public Health:** Items used by public health authorities to prevent, detect, protect and respond to potential or actual public health threats or emergencies.

- **Disaster:** Medical items that should be stockpiled for mass casualty/disaster response situations.

- **Mortuary Operations:** Items recommended for DMORT operations.

Item Number	Title	POD	BLS	ALS	PRE-HOSP	HOSP	PH	DIS	MORT OPS
01AR-02-APR	Respirator, Air-Purifying, Full-Face, Tight-Fitting, Negative Pressure, CBRN								✔
01AR-02-APRC	Canister, CBRN, APR								✔
01AR-03-PAPA	Respirator, Powered, Air-Purifying (PAPR), CBRN								✔
01AR-03-PAPB	Battery Pack, PAPR								✔
01AR-03-PAPC	Canister, CBRN, PAPR								✔
01AR-05-COMB	Equipment, Respiratory Protection, Combination	✔							✔
01AR-06-DISP	Respirator, Particulate, Disposable	✔							✔
01AR-06-FLTR	Filter, Particulate	✔							✔
01AR-06-REUS	Respirator, Particulate, Reusable	✔							✔
01AR-07-FTST	Tester, Mask Leak/Fit	✔							✔
01CB-04-ENSM	Ensemble, Terrorism Incident Protective, NFPA 1994 Class 4	✔							✔
01EM-01-EFPM	Device, Eye and Face Protection, Emergency Medical, Multiple-Use, NFPA 1999	✔							✔
01EM-01-EFPS	Device, Eye and Face Protection, Emergency Medical, Single-Use, NFPA 1999	✔							✔
01EM-01-MASK	Mask, Emergency Medical, Single-Use, NFPA 1999	✔							✔
01EM-02-GARM	Garment, Emergency Medical, Multiple-Use, NFPA 1999	✔							✔
01EM-02-GARS	Garment, Emergency Medical, Single-Use, NFPA 1999	✔							✔
01EM-03-GLCL	Gloves, Emergency Medical, Cleaning, NFPA 1999	✔							✔
01EM-03-GLME	Gloves, Emergency Medical, Examination, NFPA 1999	✔							✔
01EM-03-GLMW	Gloves, Emergency Medical, Work, NFPA 1999								✔
01EM-04-FTWC	Covers, Footwear, Emergency Medical, NFPA 1999								✔
01EM-04-FTWF	Footwear, Medical Care Facility, NFPA 1999								✔
01EM-04-FTWR	Footwear, Emergency Medical, NFPA 1999	✔							✔
01ZA-02-GLVI	Gloves, Inner, Cotton	✔							✔
01ZA-02-GLVW	Gloves, Outer, Work	✔							✔
01ZA-03-EYEP	Protection, Eye	✔							✔
01ZA-06-HHAT	Hardhat								✔

Item Number	Title	POD	BLS	ALS	PRE-HOSP	HOSP	PH	DIS	MORT OPS
01ZA-06-PRPD	Padding, Protective	✔							
01ZA-06-VEST	Vest or Outer Garment, High-visibility	✔							
01ZP-00-GBAG	Bag/Box, Ensemble Gear Storage	✔							
02EX-00-EXEN	Equipment, Explosive Entry	✔							
03OE-03-KTFA	Kit, First Aid, Trauma Type	✔							✔
03OE-03-LTPA	Lighting, Portable Area Illumination	✔							✔
03OE-03-MEGA	System, Public Address, Handheld or Mobile	✔							✔
03OE-03-SIGN	Signs	✔							✔
03OE-03-TIMR	Timer	✔							
03OE-04-CRNT	Detectors, Current	✔							
03OE-04-EXAC	Extinguisher, Fire, Class ABC	✔							✔
03OE-04-KTTL	Kit, Tool, Miscellaneous, Non-sparking	✔							
03OE-04-LTHE	Light, Personal, Intrinsically Safe	✔							
03OE-04-LTHH	Light, Hand-Held or Helmet-Mounted Illumination	✔							✔
03OE-04-MMTR	Multi-Meter, Electrical	✔							
03SR-02-TLHN	Tools, Hand								✔
03SR-03-TPBM	Tape, Boundary Marking	✔							
04AP-03-GISS	System, Geospatial Information (GIS)	✔							
04AP-05-CDSS	Systems and Tools, ICS	✔							
04AP-05-CRED	System, Credentialing	✔							
04AP-05-SVIS	Software, Operational Space Visualization	✔							
04AP-06-TRAF	Software, Traffic Modeling	✔							
04AP-07-INVN	Software, Equipment Tracking and Inventory	✔							
04HW-01-DTOP	Computer, Desktop	✔							
04HW-01-HHCD	Computing Device, Handheld	✔							
04HW-01-MOBL	Computer, Mobile Data	✔							
04HW-01-NTBK	Computer, Portable	✔							
04HW-01-SRVR	Computer, Server	✔							
04HW-02-ALL1	All-in-One	✔							
04HW-02-BARC	Equipment, Bar Code Reading and Printing	✔							
04HW-02-PRNT	Printer	✔							
04HW-02-SCAN	Scanner, Imaging	✔							
04HW-02-STOR	Storage, Portable External	✔							
04HW-03-SSRV	Server, Serial	✔							
04HW-03-SWCH	Switch, Network	✔							
04HW-03-WAP	Access Point, Wireless	✔							
04HW-04-CABL	Adapter Cables/Connectors	✔							
04MD-01-CMRA	Camera, Still	✔							
04MD-02-PROJ	Projector, Video	✔							✔
04MD-03-DISP	Display, Video	✔							
04SW-01-OSSS	System, Server Operating	✔							
04SW-01-OSSW	System, Workstation Operating	✔							
04SW-02-EMLC	Software, E-mail Client	✔							
04SW-02-EMLS	Software, E-mail Server	✔							
04SW-02-IMSG	Software, Instant Messaging	✔							
04SW-02-VCSW	Software, Video Teleconferencing	✔							
04SW-03-OFFC	Software, Office Software Suite	✔							
05AU-00-BIOM	Device, Biometric User Authentication	✔							
05EN-00-ECRP	Software, Encryption	✔							
05EN-00-ETRN	Encryption, Data Transmission	✔							
05HS-00-MALW	Software, Malware Protection	✔							
05HS-00-PFWL	System, Personal Firewall	✔							

Item Number	Title	POD	BLS	ALS	PRE-HOSP	HOSP	PH	DIS	MORT OPS
05NP-00-FWAL	Firewall, Network	✔							
06CC-01-CELL	Phone, Cellular	✔							
06CC-02-2WAY	Device, Messaging, 2-Way Text	✔							
06CC-02-DSAD	Device, Data Service Access	✔							
06CC-02-PAGE	Services/Systems, Paging	✔							
06CC-03-SATB	Phone, Satellite Base	✔							
06CC-03-SATM	Phone, Satellite Mobile	✔							
06CC-03-SATP	Phone, Satellite Portable	✔							
06CC-04-SADS	Services, Satellite Data	✔							
06CC-05-PRTY	Priority Services, Communications	✔							
06CP-01-BASE	Radio, Base	✔							
06CP-01-MOBL	Radio, Mobile	✔							
06CP-01-PORT	Radio, Portable	✔							
06CP-03-ICOM	Intercom	✔							
06CP-03-TOWR	Systems, Antenna and Tower	✔							
06CP-05-BRAC	Bridge, Audio Teleconferencing	✔							
06CP-06-SHRD	Shredder/Disintegrator	✔							
08D2-01-HTRW	Heaters, Water, Transportable							✔	
09ME-01-ADMN	Equipment, Administrative	✔	✔	✔	✔	✔	✔	✔	✔
09ME-01-BAGM	Bag/Kit/Pack, Medical		✔	✔	✔	✔	✔	✔	
09ME-01-COTS	Cots		✔	✔	✔	✔	✔	✔	✔
09ME-01-MCIK	Equipment/Kits, Multi-Casualty Incident (MCI)		✔	✔	✔	✔		✔	
09ME-01-PEDT	Tool, Pediatric Patient Assessment and Management	✔		✔	✔	✔	✔	✔	
09ME-01-SHEL	Shelter, Medical				✔	✔	✔	✔	✔
09ME-02-AWMG	Equipment, Airway Management		✔	✔	✔	✔		✔	
09ME-02-ETCO	Monitor, End Tidal CO2, Quantitative/Qualitative			✔	✔	✔		✔	
09ME-02-OXYE	Equipment, Oxygen	✔	✔	✔	✔	✔		✔	
09ME-02-SUCT	Equipment, Suction Units		✔	✔	✔	✔		✔	
09ME-02-VENT	Ventilators			✔	✔	✔		✔	
09ME-03-BCNI	Monitor, Blood Chemistry, Non-Invasive			✔	✔	✔			
09ME-03-BPSL	Equipment, Blood Pressure	✔	✔	✔	✔	✔		✔	
09ME-03-DEAE	Defibrillator, Automated External		✔	✔	✔	✔		✔	
09ME-03-DEMP	Defibrillator/Cardiac Monitors/Pacing			✔	✔	✔		✔	
09ME-03-GLUM	Meters, Glucose		✔	✔	✔	✔		✔	
09ME-03-OTOP	Otoscope/Ophthalmoscope					✔		✔	
09ME-03-POXI	Oximeter, Pulse		✔	✔	✔	✔		✔	
09ME-03-STET	Stethoscope	✔	✔	✔	✔	✔		✔	
09ME-03-THER	Thermometer	✔	✔	✔	✔	✔	✔	✔	✔
09ME-04-SPIN	Equipment, Spinal Immobilization		✔	✔	✔	✔		✔	
09ME-04-SPLT	Splints, Durable		✔	✔	✔	✔		✔	
09ME-05-GURN	Gurneys	✔	✔	✔	✔	✔		✔	
09ME-05-LITR	Litters/Stretchers		✔	✔	✔	✔		✔	
09ME-06-PUMP	Pump, Intravenous			✔	✔	✔		✔	
09ME-07-ISOL	Equipment, Patient Isolation					✔	✔	✔	
09ME-07-PCNT	Equipment, Pharmaceutical Counting	✔				✔	✔	✔	
09ME-07-PLBL	Equipment, Pharmaceutical Labeling	✔				✔	✔	✔	
09ME-07-TRAN	Equipment, Translation/Accessibility	✔	✔	✔	✔	✔	✔	✔	
09MS-01-ADMN	Supplies, Administrative	✔	✔	✔	✔	✔	✔	✔	✔
09MS-01-ALPP	Pads, Alcohol Prep	✔	✔	✔	✔	✔	✔	✔	
09MS-01-BAGB	Bag, Body, Heavy-Duty		✔	✔	✔	✔	✔	✔	✔
09MS-01-KDEB	Kit, Debridement, and Supplies					✔		✔	
09MS-01-LNEN	Linens			✔	✔	✔		✔	

Item Number	Title	POD	BLS	ALS	PRE-HOSP	HOSP	PH	DIS	MORT OPS
09MS-01-MEDS	Supplies, Medication Administration	✔	✔	✔	✔	✔	✔	✔	
09MS-01-NEAG	Needles, Assorted	✔		✔	✔	✔	✔	✔	✔
09MS-01-POVO	Solutions and Applicators, Povidone Iodine	✔			✔	✔	✔		
09MS-01-SCRN	Screen, Privacy	✔			✔	✔	✔		
09MS-01-SHER	Shears/Scissors, Medical		✔	✔	✔	✔		✔	✔
09MS-01-SHEY	Shield, Eye Irrigation Lens		✔	✔	✔	✔		✔	
09MS-01-SUTR	Suture, Various Sizes					✔		✔	✔
09MS-01-SUTS	Supplies and Materials, Suture					✔		✔	✔
09MS-01-TNDP	Depressor, Tongue	✔	✔	✔	✔	✔		✔	✔
09MS-01-TTAG	Tags and Supplies, Triage		✔	✔	✔	✔	✔	✔	
09MS-02-AWMG	Supplies, Airway Management		✔	✔	✔	✔	✔	✔	
09MS-02-BITE	Block, Bite		✔	✔	✔	✔		✔	
09MS-02-NATU	Tubes, Nasogastric			✔	✔	✔		✔	
09MS-02-NEBU	Nebulizer			✔	✔	✔		✔	
09MS-02-OXYA	Supplies, Oxygen Administration		✔	✔	✔	✔	✔	✔	
09MS-02-SUCT	Supplies and Adjuncts, Suction		✔	✔	✔	✔		✔	
09MS-02-THOR	Kit, Thoracostomy and Supplies			✔	✔	✔		✔	
09MS-03-BAGH	Bag, Biohazard	✔	✔	✔	✔	✔	✔	✔	
09MS-03-BIOD	Supplies, Biohazard Disposal	✔	✔	✔	✔	✔	✔	✔	✔
09MS-03-DSIN	Supplies, Disinfectant and Antiseptic	✔	✔	✔	✔	✔	✔	✔	
09MS-03-GLVN	Gloves, Biomedical, Non-Sterile	✔	✔	✔	✔	✔	✔	✔	
09MS-03-GLVS	Gloves, Biomedical, Sterile				✔	✔	✔	✔	
09MS-03-HYGP	Supplies, Personal Hygiene	✔	✔	✔	✔	✔	✔	✔	
09MS-03-ISOS	Supplies, Body Substance Isolation	✔	✔	✔	✔	✔		✔	
09MS-04-BAND	Bandages and Dressings	✔	✔	✔	✔	✔	✔	✔	
09MS-04-HSBN	Bandages and Products, Hemostatic		✔	✔	✔	✔		✔	
09MS-04-TAPE	Tape, Adhesive	✔	✔	✔	✔	✔	✔	✔	
09MS-05-IVBG	Bag, Intravenous Pressure Infusion			✔	✔	✔		✔	
09MS-05-IVSA	Supplies, Intravenous Administration			✔	✔	✔		✔	
09MS-05-NEIO	Needles, Intraosseous Infusion			✔	✔	✔		✔	
09MS-05-SYRC	Cartridge Injector, Syringe	✔		✔	✔	✔	✔	✔	✔
09MS-05-SYRG	Syringe	✔		✔	✔	✔	✔	✔	✔
09MS-06-PROB	Electrodes/Probes, Monitoring			✔	✔	✔		✔	
09MS-07-REST	Supplies/Systems, Patient Restraint		✔	✔	✔	✔		✔	
09MS-08-SPIN	Supplies, Spinal Immobilization		✔	✔	✔	✔		✔	
09MS-08-SPLT	Splints, Disposable		✔	✔	✔	✔		✔	
09MS-09-KTOB	Kit, Obstetrical		✔	✔	✔	✔	✔	✔	
09MY-01-ANTH	Kit, Anthropology Section Tools					✔		✔	✔
09MY-01-DENT	Kit, Odontology Section Tools					✔		✔	✔
09MY-01-DNAK	Kit, DNA Section Tools					✔		✔	✔
09MY-01-EMBL	Kit, Embalming Section Tools					✔		✔	✔
09MY-01-FPRN	Kit, Fingerprint Section Tools					✔		✔	✔
09MY-01-PATH	Kit, Pathology Section Tools					✔		✔	✔
09MY-01-PHOT	Kit, Photography Section Tools					✔		✔	✔
09MY-01-SUPT	Kit, Mortuary Operations Support					✔		✔	✔
09MY-01-XRAY	Kit, Radiography Section Tools					✔		✔	✔
09MY-02-BAGS	System, Encapsulating Body Storage					✔		✔	✔
09MY-02-BHST	Hoist, Body					✔		✔	✔
09MY-02-RACK	Racking, Lightweight, Portable					✔		✔	✔
09MY-02-REFR	Refrigerator, Multi-Body					✔		✔	✔
09MY-02-TRUK	Truck, Church (Casket)					✔		✔	✔
09PH-01-ADEN	Adenosine			✔	✔	✔		✔	

Item Number	Title	POD	BLS	ALS	PRE-HOSP	HOSP	PH	DIS	MORT OPS
09PH-01-ALBU	Albuterol			✔	✔	✔		✔	
09PH-01-AMIO	Amiodarone			✔	✔	✔		✔	
09PH-01-ANTA	Antacids			✔	✔	✔	✔	✔	
09PH-01-ATVT	Ipratropium			✔	✔	✔		✔	
09PH-01-BCLM	Beclomethasone					✔		✔	
09PH-01-CACL	Calcium Chloride			✔	✔	✔		✔	
09PH-01-DEXT	Dextrose			✔	✔	✔	✔	✔	
09PH-01-DIPH	Diphenhydramine			✔	✔	✔		✔	
09PH-01-DOPA	Dopamine			✔	✔	✔		✔	
09PH-01-ELEC	Fluid, Electrolyte Replacement, Oral		✔	✔	✔	✔	✔	✔	
09PH-01-EPIA	Epinephrine, Auto-Injector		✔	✔	✔	✔	✔	✔	
09PH-01-EPIP	Epinephrine			✔	✔	✔		✔	
09PH-01-FURO	Furosemide			✔	✔	✔		✔	
09PH-01-GLUC	Glucagon		✔	✔	✔	✔		✔	
09PH-01-LIDO	Lidocaine, All Concentrations			✔	✔	✔		✔	
09PH-01-MASU	Magnesium Sulfate			✔	✔	✔		✔	
09PH-01-METP	Methylprednisolone			✔	✔	✔		✔	
09PH-01-NTRO	Nitroglycerin			✔	✔	✔		✔	
09PH-01-OXYG	Oxygen		✔	✔	✔	✔	✔	✔	
09PH-01-POLY	Polysporin Ointment	✔		✔	✔	✔		✔	
09PH-01-RING	Ringers Solution, Lactated			✔	✔	✔			
09PH-01-SALI	Saline Solution		✔	✔	✔	✔	✔	✔	
09PH-01-SISU	Silver Sulfadiazine Cream			✔	✔	✔		✔	
09PH-01-SOBI	Sodium Bicarbonate			✔	✔	✔		✔	
09PH-01-TCOP	Tetracaine Ophthalmic			✔	✔	✔	✔	✔	
09PH-01-THEO	Theophylline			✔	✔	✔		✔	
09PH-01-THIA	Thiamine			✔	✔	✔	✔	✔	
09PH-01-WATR	Water, Sterile		✔	✔	✔	✔	✔	✔	
09PH-02-ACET	Acetaminophen	✔		✔	✔	✔	✔	✔	
09PH-02-ASA	Acetylsalicylic Acid			✔	✔	✔	✔	✔	
09PH-02-IBUP	Ibuprofen	✔		✔	✔	✔	✔	✔	
09PH-02-KETO	Ketorolac					✔		✔	
09PH-02-MZLM	Midazolam			✔	✔	✔		✔	
09PH-03-ADAM	Adamantines	✔				✔	✔	✔	
09PH-03-AMOX	Amoxicillin				✔	✔	✔	✔	
09PH-03-CEPH	Cephalexin					✔		✔	
09PH-03-CHLO	Chloramphenicol					✔		✔	
09PH-03-CPRO	Ciprofloxacin				✔	✔	✔	✔	
09PH-03-DOXY	Doxycycline				✔	✔	✔	✔	
09PH-03-ERYT	Erythromycin				✔	✔		✔	
09PH-03-GENT	Gentamicin					✔		✔	
09PH-03-MZOL	Metronidazole					✔		✔	
09PH-03-NEUR	Neuraminidase Inhibitors	✔				✔	✔	✔	
09PH-03-OPHE	Ophthalmic Erythromycin				✔	✔		✔	
09PH-03-OPHG	Ophthalmic Gentamicin				✔	✔		✔	
09PH-03-TRIM	Trimethoprim/Sulfamethoxazole					✔		✔	
09PH-04-MOSU	Morphine Sulfate			✔	✔	✔		✔	
09PH-04-NALX	Naloxone			✔	✔	✔	✔	✔	
09PH-05-AMNI	Amyl Nitrite			✔	✔	✔	✔	✔	
09PH-05-ATSF	Atropine Sulfate		✔	✔	✔	✔	✔	✔	
09PH-05-CALG	Calcium Gluconate			✔	✔	✔		✔	
09PH-05-CANA	CANA Auto-Injector		✔	✔	✔	✔	✔	✔	

Item Number	Title	POD	BLS	ALS	PRE-HOSP	HOSP	PH	DIS	MORT OPS
09PH-05-CHAR	Charcoal, Activated		✔	✔	✔	✔		✔	
09PH-05-COBL	Hydroxocobalamin			✔	✔	✔	✔	✔	
09PH-05-CYKT	Kit, Cyanide Antidote			✔	✔	✔	✔	✔	
09PH-05-DTPC	Ca-DTPA, Pentetate Calcium Trisodium Injection					✔		✔	
09PH-05-DTPZ	Zn-DTPA, Pentetate Zinc Trisodium Injection					✔		✔	
09PH-05-METB	Methylene Blue			✔	✔	✔		✔	
09PH-05-NAAK	Nerve Agent Antidote Kit (NAAK)		✔	✔	✔	✔	✔	✔	
09PH-05-POTI	Potassium Iodide				✔	✔	✔	✔	
09PH-05-PRAL	Pralidoxime Chloride			✔	✔	✔	✔	✔	
09PH-05-PRUS	Prussian Blue					✔		✔	
09PH-05-SOTH	Sodium Thiosulfate			✔	✔	✔		✔	
09PH-06-GRAN	Gransetron	✔				✔		✔	
09PH-06-LOPE	Loperamide	✔				✔		✔	
09PH-06-ONDN	Ondansetron	✔		✔	✔	✔		✔	
09PH-06-PHNG	Promethazine			✔	✔	✔		✔	
09PH-07-DIAZ	Diazepam			✔	✔	✔		✔	
09PH-07-FOSP	Fosphenytoin					✔		✔	
09PH-07-LORA	Lorazepam			✔	✔	✔		✔	
09PH-07-PHNT	Phenytoin					✔		✔	
09TR-01-CSIM	Equipment, Training/Casualty Simulation		✔	✔	✔	✔	✔	✔	
09TR-01-MKIT	Supplies, Moulage		✔	✔	✔	✔	✔	✔	
09TR-01-SAIT	Simulator, Auto Injector, Training		✔	✔	✔	✔	✔	✔	
10BC-00-BATT	Batteries, All Types, Sizes	✔							✔
10GE-00-GENR	Generators	✔							
10PE-00-INVT	Inverters	✔							
10PE-00-PCDS	System, Power Conditioning	✔							
10PE-00-PTSW	Switch, Power Transfer	✔							
10PE-00-RECT	Rectifiers	✔							
10PE-00-REEL	Reels, Electric Cord	✔							
10PE-00-UPS	Supply, Uninterruptible Power (UPS)	✔							
11RE-00-RFEX	References, Field Expedient								✔
12TR-00-TEQP	Trailer, Equipment	✔							
13IT-00-ALRT	System, Alert/Notification	✔							
14SW-01-LITE	Lighting, Area, Fixed	✔							
14SW-01-PACS	System, Physical Access Control	✔							
14SW-01-SIDP	Systems, Personnel Identification	✔							
14SW-01-VIDA	Systems, Video Assessment, Security	✔							
19GN-00-BGPK	Bags/Packs	✔							✔
19GN-00-BIVY	Bags, Bivy/Sleeping	✔							
19GN-00-FANV	Fan, Cooling/Heating/Ventilation	✔							✔
19GN-00-FUEL	Container, Fuel Storage	✔							✔
19GN-00-H2OD	System, Water Distribution	✔							
19GN-00-HSSF	Housing, Subsistence and Sanitation	✔							
19GN-00-OPCK	Overpack								✔
19GN-00-RFGR	Refrigerator/Freezer	✔							✔
19GN-00-RFMN	Monitors/Recorders, Temperature and Humidity	✔							
19MH-00-BULK	Equipment, Bulk Material Handling	✔							✔
19MH-00-CART	Cart, Field	✔							✔
19MH-00-CONT	Containers, Storage	✔							✔
19SS-00-SHEL	Systems, Shelter, Rapid Deployment								✔
19SS-00-SHEN	System, Environmental Control								✔

STANDARDS LIST

The list on the following pages is referenced by item number from multiple sections of the SEL. In addition to its number, each item on the list has two annotations:

- Type, which will be either "A" for Adopted or "R" for Reference Only. Adopted standards are those that have been formally adopted by the IAB. All other standards are included for reference only.

- Use/Care, which distinguishes standards for the use and care of personal protective equipment, as opposed to product certification standards. Such standards will be identified by "Y" in the Use/Care column.

Each standard in this list also has a corresponding record in the Responder Knowledge Base (www.rkb.us). The online records contain a summary description of the standard, the promulgating organization, and one or more links through which the standard may be viewed or purchased.

ID#	Standard Name	Use/Care	Type*
1	21 CFR (Several Standards apply) FDA. Local standards for EMS and facility patient management equipment should be used.		R
2	21 CFR 862.1345 (FDA), Glucose test system		R
3	21 CFR 868.1400 (FDA), Carbon Dioxide Gas Analyzer		R
4	21 CFR 868.1930 (FDA), Stethoscope head		R
5	21 CFR 868.5630 (FDA), Nebulizer		R
6	21 CFR 868.5895 (FDA), Continuous Ventilator		R
7	21 CFR 868.5915 (FDA), Manual emergency ventilator		R
8	21 CFR 870.1025 (FDA), Arrhythmia Detector and Alarm (including ST-segment measurement and alarm)		R
9	21 CFR 870.1120 (FDA), Blood pressure cuff		R
10	21 CFR 870.2700 (FDA), Oximeter		R
11	21 CFR 870.2800 (FDA), Medical magnetic tape recorder		R
12	21 CFR 870.5300 (FDA), DC-defibrillator (including paddles)		R
13	21 CFR 872.6770 (FDA), Cartridge syringe		R
14	21 CFR 874.4770 (FDA), Otoscope		R
15	21 CFR 876.1500 (FDA), Endoscope and accessories		R
16	21 CFR 876.5980 (FDA), Gastrointestinal tube and accessories		R
17	21 CFR 878 (FDA) (multiple sections apply)		R
18	21 CFR 878.3900 (FDA), Inflatable extremity splint		R
19	21 CFR 878.3910 (FDA), Non-inflatable extremity splint		R
20	21 CFR 878.4040 (FDA), Surgical apparel		R
21	21 CFR 878.4460 (FDA), Surgeon's glove		R
22	21 CFR 878.4490 (FDA), Absorbable hemostatic agent and dressing		R
23	21 CFR 878.4780 (FDA), Powered suction pump		R
24	21 CFR 878.4800 (FDA), Manual surgical instrument for general use		R
25	21 CFR 880 (FDA) (multiple sections apply)		R
26	21 CFR 880.2900 (FDA), Clinical Color Change Thermometer		R

"R" indicates a reference standard; "A" indicates a standard that has been formally adopted by the IAB.

ID#	Standard Name	Use/Care	Type*
27	21 CFR 880.2910 (FDA), Clinical Electronic Thermometer		R
28	21 CFR 880.2920 (FDA), Clinical Mercury Thermometer		R
29	21 CFR 880.5025 (FDA), I.V. Container		R
30	21 CFR 880.5200 (FDA), Intravascular Catheter		R
31	21 CFR 880.5240 (FDA), Medical adhesive tape and adhesive bandage		R
32	21 CFR 880.5420 (FDA), Pressure infusor for an I.V. bag		R
33	21 CFR 880.5440 (FDA), Intravascular Administration Set		R
34	21 CFR 880.5725 (FDA), Infusion pump		R
35	21 CFR 880.5860 (FDA), Piston syringe		R
36	21 CFR 880.6230 (FDA), Tongue depressor		R
37	21 CFR 880.6250 (FDA), Patient examination glove		R
38	21 CFR 880.6740 (FDA), Vacuum-powered body fluid suction apparatus		R
39	21 CFR 880.6760 (FDA), Protective restraint		R
40	21 CFR 880.6820 (FDA), Medical disposable scissors		R
41	21 CFR 880.6900 (FDA), Hand-carried stretcher		R
42	21 CFR 880.6910 (FDA), Wheeled stretcher		R
43	21 CFR 886.1570 (FDA), Ophthalmoscope		R
44	21 CFR 886.4360 (FDA), Ocular surgery irrigation device		R
45	21 CFR 898 (FDA), Performance Standard for Electrode Lead Wires and Patient Cables		R
46	29 CFR 1910. 95 (OSHA), Occupational Noise Exposure		R
47	29 CFR 1910. 120 (OSHA), Hazardous Waste Operations and Emergency Response	Y	R
48	29 CFR 1910. 132 (OSHA), General Requirements, PPE	Y	R
49	29 CFR 1910. 133 (OSHA), Eye and face protection	Y	R
50	29 CFR 1910. 134 (OSHA), Respiratory Protection	Y	R
51	29 CFR 1910. 135 (OSHA), Head Protection	Y	R
52	29 CFR 1910. 138 (OSHA), Hand Protection	Y	R
53	29 CFR 1910. 146 (OSHA), Permit-Required Confined Spaces		R
54	29 CFR 1910. 147 (OSHA), The Control of Hazardous Energy (Lockout/Tagout)		R
55	29 CFR 1910.1030 (OSHA), Bloodborne Pathogens		R
56	29 CFR 1926, (OSHA), Safety and Health Regulations for Construction		R
57	40 CFR 264 (EPA), Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities		R
58	42 CFR 84 (NIOSH), Respiratory Protective Devices		R
59	42 CFR 84 (NIOSH), with Air-Purifying Escape Respirator (APER) CBRN Statement of Standard and Self-Contained Escape Respirator (SCER) CBRN Statement of Standard; NPPTL Letter dated October 8, 2003		A
60	42 CFR 84 (NIOSH), with APR CBRN Statement of Standard; NPPTL Letter dated April 4, 2003		A
61	42 CFR 84 (NIOSH), with Powered Air-Purifying Respirator (PAPR) CBRN Statement of Standard dated October 6, 2006		A
62	42 CFR 84 (NIOSH), with Self-Contained Breathing Apparatus (SCBA) CBRN Statement of Standard (Requires NFPA 1981-2007 Certification)		A
63	47 CFR 90 (FCC), Private Land Mobile Radio Services		R

* *"R" indicates a reference standard; "A" indicates a standard that has been formally adopted by the IAB.*

ID#	Standard Name	Use/Care	Type*
64	49 CFR 172.101 (DOT) Purpose and use of hazardous materials table		R
65	49 CFR 173 (DOT), Hazardous Materials Regulations - Shippers – General requirements for Shipments and Packagings	Y	R
66	49 CFR 173.3 (DOT), Hazardous Materials Regulations - Packaging and Exceptions	Y	R
67	49 CFR 178, Specifications for Packaging	Y	R
68	ANSI F852-99e1, Standard Specification for Portable Gasoline Containers for Consumer Use		R
69	ANSI INCITS 385-2004, Face Recognition Format for Data Interchange		R
70	ANSI Z87.1 Occupational and Educational Personal Eye and Face Protection Devices, 2003 Edition		A
71	ANSI Z89.1, Industrial Head Protection, 2009 Edition		A
72	ANSI/Compressed Gases Association Specification G-7.1, Commodity Specification for Air, Edition 5, 2004		R
73	ANSI/ISEA 102-1990 (rev 2009), Gas Detector Tube Units - Short-Term Type for Toxic Gases and Vapors in Working Environments		R
74	ANSI/ISEA 105, Hand Protection Selection Criteria, 2005 Edition		A
75	ANSI/ISEA 107, High Visibility Safety Apparel, 2010 Edition		A
76	ANSI/ISEA 207, High Visibility Public Safety Vests, 2006 Edition		R
77	ANSI/NIST-ITL 1-2007, Data Format for the Interchange of Fingerprint, Facial, & Other Biometric Information - Part 1 (also available as NIST Special Publication 500-271)		R
78	ANSI/NIST-ITL 2-2008, Data Format for the Interchange of Fingerprint, Facial, & Other Biometric Information - Part 2: XML Version (also available as NIST Special Publication 500-275)		R
79	AOAC Official Method 2004.08, RAMP® Anthrax Test Cartridge, Revised First Action 2006		A
80	ASTM D4490-96 (2006)e1, Measuring the Concentration of Toxic Gases or Vapors Using Detector Tubes		R
81	ASTM E2458-06, Standard Practices for Bulk Sample Collection and Swab Sample Collection of Visible Powders Suspected of Being Biothreat agents from Nonporous Surfaces		R
82	ASTM E2566-08, Standard Test Method for Determining Visual Acuity and Field of View of On-Board Video Systems for Teleoperation of Robots for Urban Search and Rescue Applications		A
83	ASTM E2592-07, Standard Practice for Evaluating Cache Packaged Weight and Volume for Robots for Urban Search and Rescue		A
84	ASTM F1031-00 (2006), Standard Practice for Training the Emergency Medical Technician (Basic)		R
85	ASTM F1052-97 (2002), Standard Test Method for Pressure Testing Vapor Protective Ensembles	Y	R
86	ASTM F1453-92 (2003), Standard Guide for Training and Evaluation of First Responders Who Provide Emergency Medical Care		R
87	ASTM F1556-94 (2007), Standard Guide for Spinal Immobilization and Extrication (Spine) Device Characteristics		R
88	ASTM F1651-95 (2002), Standard Guide for Training the Emergency Medical Technician (Paramedic)		R
89	ASTM F1897-04, Standard Specification for Leg Protection for Chain Saw Users		R

* *"R" indicates a reference standard; "A" indicates a standard that has been formally adopted by the IAB.*

ID#	Standard Name	Use/Care	Type*
90	ASTM F2020-02a, Standard Practice for Design, Construction, and Procurement of Emergency Medical Services Systems (EMSS) Ambulances		R
91	ASTM F2100-07, Standard Specification for Performance of Materials Used in Medical Face Masks		R
92	ASTM F2300-10, Standard Test Method for Measuring the Performance of Personal Cooling Systems Using Physiological Testing		R
93	ASTM F2318-04, Standard Specification for Rotary Wing Basic Life Support		R
94	ASTM F2319-04, Standard Specification for Fixed Wing Basic Life Support		R
95	ASTM WK11343 (Work Item) - New Test Method for Blast Resistance of Trash Receptacles		R
96	CGA E-4, 4th Edition, Standard for Gas Pressure Regulators, Compressed Gas Association, 2002		R
97	CGA E-7, 2nd Edition, Standard for Medical Gas Regulators and Flowmeters, Compressed Gas Association, 1998		R
98	CGA G-4.1, 5th Edition, Cleaning Equipment for Oxygen Service, Compressed Gas Association, 2004		R
99	Common Alerting Protocol (CAP) 1.1, OASIS, October 2005		A
100	Data Encryption Standard (DES), and Triple-DES (3-DES)		R
101	Emergency Data Exchange Language (EDXL) Distribution Element, OASIS, May 2006		A
102	Emergency Data Exchange Language (EDXL) Hospital Availability Exchange (HAVE) 1.0, OASIS, November 2008		A
103	Emergency Data Exchange Language Resource Messaging (EDXL-RM) 1.0, OASIS, November 2008		A
104	Federal Food, Drug and Cosmetic Act		R
105	Federal Information Processing Standard (FIPS) 140-2, Security Requirements for Cryptographic Modules, 2001		R
106	Federal Information Processing Standard (FIPS) 197, Advanced Encryption Standard (AES)		R
107	Federal Information Processing Standard (FIPS) 201-1, Personal Identity Verification (PIV) of Federal Employees and Contractors, 2006		R
108	Global Justice XML Data Model (DOJ)		A
109	Guidelines for Design and Construction of Hospital and Health Care Facilities, 2001 (American Institute of Architects and the Facilities Guidelines Institute)		R
110	Guidelines for Environmental Infection Control in Health-Care Facilities, 2003 (CDC and the Healthcare Infection Control Practices Advisory Committee)		R
111	IEEE 802.11b-1999 (R2003) Supplement to 802.11-1999, Wireless LAN MAC and PHY specifications: Higher speed Physical Layer (PHY) extension in the 2.4 GHz band		R
112	IEEE 802.11g-2003 Amendment to IEEE Std 802.11, 1999 Edition (Reaff 2003) IEEE Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements		R
113	IEEE 802.11n-2009 Amendment 5 to IEEE Std 802.11, 1999 Edition (Reaff 2003), IEEE Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements		R
114	IEEE/ANSI N42.13-2004, American National Standard Calibration and Usage of "Dose Calibrator" Ionization Chambers for the Assay of Radionuclides		R

"R" indicates a reference standard; "A" indicates a standard that has been formally adopted by the IAB.

ID#	Standard Name	Use/Care	Type*
115	IEEE/ANSI N42.14-1999, American National Standard for Calibration and Use of Germanium Spectrometers for the Measurement of Gamma-Ray Emission Rates of Radionuclides		R
116	IEEE/ANSI N42.32-2006, American National Standard Performance Criteria for Alarming Personal Radiation Detectors for Homeland Security		A
117	IEEE/ANSI N42.33-2006, American National Standard for Portable Radiation Detection Instrumentation for Homeland Security		A
118	IEEE/ANSI N42.34-2006, American National Standard Performance Criteria for Hand-held Instruments for the Detection and Identification of Radionuclides		A
119	IEEE/ANSI N42.35-2006, American National Standard for Evaluation and Performance of Radiation Detection Portal Monitors		A
120	IEEE/ANSI N42.37-2006, American National Standard for Training Requirements for Homeland Security Purposes Using Radiation Detection Instrumentation for Interdiction and Prevention		R
121	IEEE/ANSI N42.38-2006, American National Standard Performance Criteria for Spectroscopy-Based Portal Monitors Used for Homeland Security		R
122	IEEE/ANSI N42.42-2006, American National Standard Data Format Standard for Radiation Detectors Used for Homeland Security		R
123	IEEE/ANSI N42.43-2006, American National Standard Performance Criteria for Mobile and Transportable Radiation Monitors Used for Homeland Security		R
124	IEEE/ANSI N42.48-2008, American National Standard Performance Requirements for Spectroscopic Personal Radiation Detectors (SPRDs) for Homeland Security		R
125	IEEE/ANSI N42.49, American National Standard for Performance Criteria for Personal Emergency Radiation Detectors (PERD) for Exposure Control (DRAFT STANDARD)		R
126	KKK-A-1822E, Federal Specification for the Star-of-Life Ambulance		R
127	National Guidelines for Bomb Technicians, National Bomb Squad Commanders Advisory Board, March 2010		R
128	National Strategic Plan for U.S. Bomb Squads, National Bomb Squad Commanders Advisory Board, January 2010		R
129	NFPA 10: Standard for Portable Fire Extinguishers, 2010 Edition		R
130	NFPA 30: Flammable and Combustible Liquids Code, 2008 Edition		R
131	NFPA 70: National Electric Code, 2011 Edition		R
132	NFPA 450: Guide for Emergency Medical Services and Systems, 2009 Edition		R
133	NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents , 2008 Edition		A
134	NFPA 473: Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents, 2008 Edition		A
135	NFPA 1006: Standard for Rescue Technician Professional Qualifications, 2008 Edition		R
136	NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services, 2010 Edition		R
137	NFPA 1404: Standard for Fire Service Respiratory Protection Training, 2006 Edition		A
138	NFPA 1500: Standard on Fire Department Occupational Safety and Health Program, 2007 Edition	Y	R
139	NFPA 1581: Standard on Fire Department Infection Control Program, 2010 Edition	Y	R

* *"R" indicates a reference standard; "A" indicates a standard that has been formally adopted by the IAB.*

ID#	Standard Name	Use/Care	Type*
140	NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs, 2010 Edition		A
141	NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents, 2009 Edition		A
142	NFPA 1851: Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2008 Edition	Y	A
143	NFPA 1852: Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus, 2008 Edition	Y	A
144	NFPA 1936: Standard on Powered Rescue Tools, 2010 Edition		A
145	NFPA 1951: Standard on Protective Ensembles for Technical Rescue Operations, 2007 Edition		A
146	NFPA 1952: Standard on Surface Water Operations Protective Clothing and Equipment, 2010 Edition		A
147	NFPA 1971: Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2007 Edition		A
148	NFPA 1975: Standard on Station/Work Uniforms for Fire and Emergency Services, 2009 Edition		A
149	NFPA 1977: Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 2005 Edition		A
150	NFPA 1981: Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, 2007 Edition		A
151	NFPA 1982: Standard on Personal Alert Safety Systems (PASS), 2007 Edition		A
152	NFPA 1983: Standard on Life Safety Rope and Equipment for Emergency Services, 2006 Edition		A
153	NFPA 1989: Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection, 2008 Edition		A
154	NFPA 1991: Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies, 2005 Edition		A
155	NFPA 1992: Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies, 2005 Edition		A
156	NFPA 1994: Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents, 2007 Edition		A
157	NFPA 1999: Standard on Protective Clothing for Emergency Medical Operations, 2008 Edition		A
158	NFPA 2112: Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire, 2007 Edition		A
159	NFPA 2113: Standard on Selection, Care, Use, and Maintenance of Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire, 2007 Edition	Y	A
160	NIJ CR-0116.00, Law Enforcement CBRN Protective Ensemble Certification Program Requirements (Planned companion document to NIJ Standard 0116.00, CBRN Protective Ensemble Standard for Law Enforcement. No release schedule was available for this document at the time this list was updated.)		R
161	NIJ Guide 0116.00, Law Enforcement CBRN Protective Ensemble Selection and Application Guide (Planned companion document to NIJ Standard 0116.00, CBRN Protective Ensemble Standard for Law Enforcement. No release schedule was available for this document at the time this list was updated.)	Y	R
162	NIJ Guide 100-01, Selection and Application Guide to Personal Body Armor, 2001	Y	A

"R" indicates a reference standard; "A" indicates a standard that has been formally adopted by the IAB.

ID#	Standard Name	Use/Care	Type*
163	NIJ Standard 0101.06, Ballistic Resistance of Body Armor, July 2008		A
164	NIJ Standard 0106.01, Ballistic Helmets, December 1981		R
165	NIJ Standard 0108.01, Ballistic Resistant Protective Materials, September 1985		R
166	NIJ Standard 0116.00, CBRN Protective Ensemble Standard for Law Enforcement (Note: This standard was signed by the Director on 10/18/2010, and publication is expected by December 2010.)		R
167	NIJ Standard 0603.01, Portable X-Ray Systems for Use in Bomb Identification, December 2007		A
168	NIOSH Publication No. 2008-132, Guidance on Emergency Responder Personal Protective Equipment (PPE) for Response to CBRN Terrorism Incidents, June 2008		R
169	NIST SP 800-36, Guide to Selecting Information Security Products, Oct 2003		R
170	NIST SP 800-40, Version 2.0, Creating a Patch and Vulnerability Management Program, Nov 2005		R
171	NIST SP 800-41, Revision 1, Guidelines on Firewalls and Firewall Policy, Sep 2009		R
172	NIST SP 800-44, Version 2, Guidelines on Securing Public Web Servers, Sep 2007		R
173	NIST SP 800-45, Version 2, Guidelines on Electronic Mail Security, Feb 2007		R
174	NIST SP 800-46, Revision 1, Guide to Enterprise Telework and Remote Access Security, Jun 2009		R
175	NIST SP 800-47, Security Guide for Interconnecting Information Technology Systems, Aug 2002		R
176	NIST SP 800-48, Revision 1, Guide to Securing Legacy IEEE 802.1 Wireless Networks, Jul 2008		R
177	NIST SP 800-73-3, Interfaces for Personal Identity Verification, Feb 2010 (4 PARTS) Pt. 1- End Point PIV Card Application Namespace, Data Model & Representation Pt. 2- PIV Card Application Card Command Interface Pt. 3- PIV Client Application Programming Interface Pt. 4- The PIV Transitional Interfaces & Data Model Specification		R
178	NIST SP 800-76-1, Biometric Data Specification for Personal Identity Verification, Jan 2007		R
179	NIST SP 800-83, Guide to Malware Incident Prevention and Handling, Nov 2005		R
180	NIST SP 800-94, Guide to Intrusion Detection and Prevention Systems (IDPS), Feb 2007		R
181	NSF/ANSI 5-2009, Water Heater, Hot Water Support Boiler, 2009		A
182	NVLAP program (NIST) currently provides accreditation for several different types of whole body and extremity dosimeters		R
183	The National Institute for Justice (NIJ) and the Department for Homeland Security (DHS) have completed the development of an NIJ Standard for civilian bomb suits. Release is scheduled for late 2010 or early 2011.		R
184	Title 21 USC, Controlled Substances Act, Section 812		R
185	UL 913, Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations, 2006		A
186	UL 2075, UL Standard for Gas and Vapor Detectors and Sensors, 2004		A

* *"R" indicates a reference standard; "A" indicates a standard that has been formally adopted by the IAB.*

LIST OF REFERENCES

References	Comments
American Conference of Governmental Industrial Hygienists (ACGIH). <u>2008 TLVs® and BEIs®</u>. ISBN: 978-1-882417-79-7.	Features a resource for scene reference. Operating considerations include: Quantity of chemicals discussed, and it is suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development. http://www.acgih.org/Resources/press/TLV-OEV08_pr.htm
Association of American Railroads, Bureau of Explosives, ATF, U.S. Treasury Department. <u>Emergency Action Guides</u>. Association of American Railroads, 2006. ISBN: 6-00-017107-2.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development. Available in hard copy or on CD-ROM from Bureau of Explosives, 412-741-1096.
Association of American Railroads, Bureau of Explosives. <u>Emergency Handling of Hazardous Materials in Surface Transportation</u>. Association of American Railroads, 2011. ISBN: TBD.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development. *The 2005 Edition of this document has been discontinued and back copies are no longer available.* A new edition is planned for release in early 2011. Contact the Bureau of Explosives, 412-741-1096 for details.
Bevelacqua, Armando S. <u>Hazardous Materials Chemistry</u>. Delmar Thomson Learning, 2005. ISBN-13: 9781401880903.	Features basic chemical nomenclature for the responder in textbook format. Operating considerations include: Detailed chemical mechanisms are not discussed, reference resource during training, used for training Hazardous Materials Technicians.
Bevelacqua, Armando S., and Richard H. Stilp. <u>Hazardous Materials Field Guide.</u> 2nd Ed. Thomson Delmar Learning, 2007. ISBN-13: 9781418038281.	Features a resource scene reference. Operating considerations include: quantity of chemicals discussed, and it is suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Bevelacqua, Armando S., and Richard H. Stilp. <u>Terrorism Handbook for Operational Responders</u>. 3rd ed. Delmar Pub, 2009. ISBN-13: 9781428311459.	Features a reference for planning, and training.
Bevelaqua, Toby. <u>Hazardous Materials: Managing the Incident Field Operations Guide</u>. Red Hat Publishing, 2005. ISBN: 1-932235-05-1.	Features a resource for scene reference. The FOG includes detailed tactical checklists that follow the Eight Step Process©, a section on identification and recognition of containers, data cards on the top 50 hazardous materials and CBRNE, as well as a matrix of WMD and drug lab precursor chemicals. The FOG is also designed for use in the classroom to support Hazardous Materials Technician and Incident Commander training. The Field Operations Guide (FOG) is designed to be used at the incident scene as a reference guide to strategic and tactical decision-making.
Burns, Paul. <u>Symbol Seeker, Hazard Identification Manual</u>. International Edition. Symbol Seeker, 1996. ISBN: 095088362x.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Callan, Michael. <u>Street Smart HazMat Response: A Common-Sense Approach to Handling Hazardous Materials Emergencies</u>. Red Hat Publishing, 2001. ISBN: 096565656x.	Operating considerations include: used for preplanning, training and exercise development.

References	Comments
Center for Disease Control. <u>Public Health Emergency Response Guide for State, Local, and Tribal Public Health Directors</u>. Edition 1.0. Center for Disease Control.	Features an all-hazards reference tool. Pocket-sized. Durable. Contains checklists, templates, and guidance. Designed for public health professionals responsible for initiating response activities during the first 24 hours of an emergency or disaster. Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development. Available at: http://www.bt.cdc.gov/planning/responseguide.asp
Christen, Henry T., and Paul M. Maniscalco. <u>Mass Casualty and High-Impact Incidents: An Operations Guide</u>. 2nd revised ed. Prentice Hall, 2002. ISBN-13: 978-0130992222.	Features a reference for planning and training.
Christen, Henry T., and Paul M. Maniscalco. <u>Terrorism Response: Field Guide for Fire and EMS Organizations.</u> Prentice Hall, 2002. ISBN-13: 978-0131109063.	Features a reference for planning and training.
Christen, Henry T., and Paul M. Maniscalco. <u>Terrorism Response: Field Guide for Law Enforcement</u>. 3rd ed. Prentice Hall, 2005. ISBN-13: 978-0131107472.	Features a reference for planning and training.
Currance, Phillip L. <u>Medical Response to Weapons of Mass Destruction</u>. Mosby/JEMS, 2005. ISBN-13: 978-0323023313.	Useful for education of first response medical personnel.
Currance, Phillip L., Bruce Clements, and Alvin C. Bronstein. <u>Emergency Care for Hazardous Materials Exposure</u>. 3rd ed. Mosby/JEMS, 2006. ISBN-13: 978-0323048773.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Department of Defense. <u>21st Century Bioterrorism and Other Threats: U.S. Army Handbook on Medical Management of Radiological Casualties – Practical Emergency Information about Nuclear Weapons, "Dirty" Radioactive Bombs, Accidental Release, and other Radiation Contamination Threats</u>. 1st ed. Progressive Management, 2002. ISBN-13: 978-1931828239.	Features descriptions of toxicological mechanisms caused by radiological hazards.
<u>Farm Chemicals Handbook 2002</u>. Meister Publishing Company, 2002. ISBN-13: 978-9990801064.	Features a resource for scene reference. Operating considerations include: quantity of chemicals discussed, and it is suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
<u>Federal Explosives Law and Regulations, ATF Publication 5400.7</u>. Bureau of Alcohol, Tobacco, and Firearms, 2007.	Available online at: www.atf.gov/publications/download/p/atf-p-5400-7.pdf Provides legal framework, questions and answers, and example rulings. Also provides guidance on explosive handling and storage.
Fire, Frank L. <u>Common Sense Approach to Hazardous Materials.</u> 3rd ed. Pennwell Books, 1996. ISBN-13: 978-1593701949.	Textbook dealing with the chemistry and effects of hazardous chemicals and radiation.
Foden, Charles R., and Jack L. Weddell. <u>First Responder's Guide to Agricultural Chemical Accidents.</u> Boca Raton: CRC Press LLC., 1992. ISBN-13: 978-0873717991.	Features descriptions of toxicological mechanisms for the field medical technician. Operating considerations include: limitations due to the level of deployment agricultural chemicals, to be based upon protocol which the field medical technician can function, reference resource during training, and used for training Hazardous Materials Technicians.

References	Comments
Forsberg, Krister, and S.Z. Mansdore. <u>Quick Selection Guide to Chemical Protective Clothing.</u> 5th Ed. John Wiley & Sons, Inc., 2007. ISBN: 978-0-470-14681-1.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
<u>Genium's Handbook of Safety, Health, and Environmental Data for Common Hazardous Materials, CD-ROM.</u> 1st ed. McGraw-Hill Professional, 1998. ISBN-13: 978-0071341431.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Gosselin, Robert E., Roger P. Smith, Harold C. Hodge, and Jeannet Braddock. <u>Clinical Toxicology of Commercial Products.</u> 5th ed. Williams & Wilkins, 1984. ISBN-13: 978-0683036329.	Features descriptions of toxicological mechanisms of Toxic Industrial Chemicals (TICs). Operating considerations include: Detail of mechanisms somewhat limited, reference resource during preplanning, and used for training Hazardous Materials Technicians.
Graves, Barbara, ed. <u>Chem-Bio: Frequently Asked Questions.</u> Tempest Publishing, 1998. ISBN-13: 978-0966543711.	Features descriptions of military generated chemicals, as well as questions and answers. Operating considerations include: quantity of chemicals discussed, and it is a reference resource during preplanning and exercise development.
Hawley, Christopher David. <u>Hazardous Materials Air Monitoring and Detection Devices.</u> 2nd ed. CENGAGE Delmar Learning, 2006. ISBN-13: 978-1418038311.	Operating considerations include: Used for preplanning, training and exercise development.
Hawley, Chris, Gregory G. Noll, and Michael S. Hildebrand. <u>Special Operations for Terrorism and HazMat Crimes.</u> Red Hat Publishing, 2002. ISBN: 0-9656565-7-8.	Operating considerations include: Used for preplanning, training and exercise development.
Heymann, David L., ed. <u>Control of Communicable Diseases Manual.</u> 19th ed. American Public Health Association, 2008. ISBN-13: 9780875531908.	The Control of Communicable Diseases Manual is the most widely recognized sourcebook on infectious diseases. The new 18th edition addresses concerns about the impact of communicable diseases around the globe as they, new and unknown, continue to thrive, kill, maim and surprise the masses. Among the diseases addressed in the new edition is Severe Acute Respiratory Syndrome (SARS).
Keith, Lawrence. <u>The National Toxicology Program's Gloves+ Version 3.12.</u> Lewis Publishers, 1992. ISBN: 0873717104.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Kozlow, Christopher, and John Sullivan. <u>Jane's Facility Security Handbook.</u> Jane's Information Group, 2001. ISBN-13: 978-0710622884.	Features descriptions of primary planning issues. Operating considerations include: Direction with organizational structures, and to be used as a reference resource during preplanning, training, and exercise development.
Trebisacci, David. <u>NFPA Hazardous Materials Response Handbook, 2008 Edition</u>. National Fire Protection Association, 2008. ISBN: 472HB08.	The Hazardous Materials Response Handbook includes: Includes the full texts of the 2008 NFPA 472: Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents and the 2008 NFPA 473: Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents; relevant commentary that provides background information plus hands-on advice based on years of experience in the field; more than 200 illustrations, photos, and worksheets that support key facts so you can understand them more fully and apply requirements correctly; explanations of how to respond to haz-mat incidents resulting from general criminal/terrorist activities, as well as those involving weapons of mass destruction and radioactive materials; and practical guidance on emergency medical service response to incidents involving weapons of mass destruction and radioactive materials Operating considerations include: reference resource during preplanning, training, and exercise development, and it includes relevant NFPA standards.

References	Comments
Lewis, Sr. Richard J. <u>Hawley's Condensed Chemical Dictionary.</u> 15th ed. Wiley-Interscience, 2007. ISBN-13: 978-0471768654.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Lewis, Sr. Richard J. <u>Hazardous Chemicals Desk Reference.</u> 5th ed. Wiley-Interscience, 2002. ISBN-13: 978-0471441656.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Lewis, Sr. Richard J. <u>Sax's Dangerous Properties of Industrial Materials, Three Volume Print</u>. 11th ed. Wiley-Interscience, 2005. ISBN-13: 978-0471701330.	Features a resource scene reference for chemical hazards. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
Maniscalco, Paul M., and Hank T. Christen. <u>Understanding Terrorism and Managing the Consequences</u>. Prentice Hall, 2001. ISBN-13: 978-0130212290.	Operating considerations include: Used for preplanning, training and exercise development.
Maslanskey, Carol J. <u>Air Monitoring Instrumentation: A Manual for Emergency, Investigatory, and Remedial Responders</u>. John Wiley & Sons, 1993. ISBN-13: 978-0471284604.	Operating considerations include: Used for preplanning, training and exercise development.
Matheson. <u>Effects of Exposure to Toxic Gases: First Aid and Medical Treatment</u>. Matheson, 1988. ISBN-13: 978-9994698608.	Features limited descriptions of toxicological mechanisms. Operating considerations include: quantity of chemicals discussed and reference resource during preplanning, training, and exercise development.
Milne, G.W.A. <u>Gardner's Chemical Synonyms and Trade Names</u>. 11th ed. Wiley Publishing, 1999. ISBN-13: 978-0-566-08190-3.	Features a resource for scene reference. Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
<u>National Guidelines for Bomb Technicians</u>. National Bomb Squad Commanders Advisory Board, April 2006. www.nbscab.org.	Operating considerations include: Used for preplanning, training, technical selection, certification/accreditation, and equipment requirements. Limited distribution.
National Institute for Occupational Safety and Health. <u>NIOSH Pocket Guide to Chemical Hazards.</u> NIOSH Publication Number 2005-149. September 2005 Edition. ASIN: B000E8OY8C.	Features an excellent quick reference for toxic industrial chemicals. Available in CD-ROM and online version: http://www.cdc.gov/NIOSH/npg. Can also be obtained by calling 1-800-35-NIOSH.
National Institute for Occupational Safety and Health. <u>Recommendations for the Selection and Use of Respirators and Protective Clothing for Protection Against Biological Agents</u>. NIOSH Publication No. 2009-132. April 2009.	Short document containing guidance and applicable standards for both respiratory and dermal protection. View online at http://www.cdc.gov/niosh/docs/2009-132/
<u>National Strategic Plan for U.S. Bomb Squads.</u> National Bomb Squad Commanders Advisory Board, December 2006. www.nbscab.org.	Provides "Master Plan" for accredited bomb squads, shapes bomb squad policy development, and distribution restricted to accredited bomb squads. Further information, as well as an Executive Summary for Industry, is available at www.nbscab.org. Operating considerations include: Addresses alignment and coordination of Federal resources, and builds tactics, techniques, and procedures. Limited distribution.
Noll, Gregory G., Michael S. Hildebrand, and James G. Yvorra. <u>Hazardous Materials: Managing the Incident.</u> 3rd ed. Red Hat Publishing, 2005. ISBN: 1-932235-04-3.	Overviews the management of hazardous materials incidents. Primarily a learning text. The textbook consists of 12 chapters with chapters 1-3 addressing preparing for the incident and chapters 4-12 addressing how to respond safely to a hazardous materials incident. Chapter 4 is written as a "bridge chapter" and provides an overview of the Eight Step Process©, which is a systematic way of approaching a hazmat incident. Chapters 5-12 expand on Chapter 4 by dedicating one chapter to each of the Eight Steps. Operating considerations includes: Suitable for preplanning, training, and exercise development.

References	Comments
NRT Response Subcommittee Workgroup. <u>Joint Information Center Model: Collaborative Communications During Emergency Response.</u> The National Response Team, 2000. http://www.nrt.org.	A plan for conducting crisis communications during emergency responses that necessitate collaboration of multiple organizations to provide timely, useful and accurate information to the public and other stakeholders. The JIC Model works within the structure of ICS/UC while seeking to accommodate responses conducted under the FRP, FRERP, NCP or WMD/terrorist incidents.
	Document available at: http://www.nrt.org/production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/A-55JIC/$File/JIC.pdf?OpenElement
	Operating considerations include: Used at strategic level operations, and it is a reference resource during preplanning, training, and exercise development.
O'Neil, Maryadele J., ed. <u>The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals.</u> 14th ed. Merck Publishing, 2006. ISBN-13: 978-0911910001	Features a resource scene reference for chemical hazards of technical nature.
	Operating considerations include: suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.
	The web accessible version of The Merck Index, Fourteenth Edition is co-published by Merck & Co., Inc. and CambridgeSoft. This electronic version contains the text and structures of the monographs, the supplementary tables section and the Organic Name Reactions section. This product features powerful text and substructure searching tools for exploring the database. For subscription information contact:
	CambridgeSoft 100 Cambridge Park Drive Cambridge, MA 02140 USA
	ChemStore.Com (the online store) 800-315-7300 (US & Canada) 617-588-9300 (Local & International) info@cambridgesoft.com (sales department E-mail)
	The Merck Index OnlineSM is a text searchable database that contains the monograph section of The Merck Index, Thirteenth Edition. Contact the following licensed vendors for subscription access:
	DIALOG
	The Dialog Corporation 11000 Regency Parkway, Suite 10 Cary, North Carolina 27511 Tel: 1-800-3-DIALOG www.dialog.com E-mail: customer@dialog.com
	STN International
	Chemical Abstract Service
	2540 Olentangy River Road Columbus, OH 43202 Tel: 1-800-848-6533 www.cas.org E-mail: help@cas.org
Olson, Kent R. <u>Poisoning and Drug Overdose</u>. 5th ed. McGraw-Hill Medical, 2006. ISBN-13: 978-0071443333.	Features descriptions of toxicological mechanisms.
	Operating considerations include: Used for preplanning, training, and exercise development.
Pohanish, Richard P. <u>Sittig's Handbook of Toxic and Hazardous Chemicals and Carcinogens</u>. 5rth ed. New York: Noyes Publications/William Andrew Publishing, 2007. ISBN-13: 9780815515531.	Features a resource for scene reference.
	Operating considerations include: Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.

References	Comments
Reigart, J. Routt, and James R. Roberts. <u>Recognition and Management of Pesticide Poisoning</u>. 5th ed. Environmental Protection Agency, 1999.	Features descriptions of toxicological mechanisms. Online at www.epa.gov/pesticides/safety/healthcare/handbook/handbook.htm Used for preplanning, training, and exercise development.
Sidell, Frederick R. <u>Jane's Chemical-Biological Handbook</u>. 3rd ed. Jane's Information Group, 2005. ISBN-13: 978-0710627735.	Features overviews all of the primary military, chemical and biological materials. Includes differential diagnosis tools for agent identification.
Stilp, Richard H., and Armando S. Bevelacqua. <u>Emergency Medical Response to Hazardous Materials</u>. 1st ed. Delmar Thomson Learning, 1997. ISBN-13: 9780827378292.	Features descriptions of toxicological mechanisms for the field medical technician. Operating considerations include: limitations due to the level of deployment, based upon protocol which the field medical technician can function, reference resource during training, and used for training Hazardous Materials Technicians.
Ulin, Scott, and Scott Stuz. <u>Hazardous Material Injuries</u>. 4rth ed. Bradcomm, Inc., 1997. ISBN: 0-913019-05-4.	Features descriptions of toxicological mechanisms.
United States Army Medical Research Institute of Chemical Defense. <u>Medical Management of Chemical Casualties Handbook</u>. 3rd ed. Aberdeen Proving Ground: International Medical Publishing, Inc., 2002. ISBN-13: 978-1588081681.	Features descriptions of toxicological mechanisms caused by chemical weapons.
United States Army Medical Research Institute of Infectious Diseases. <u>USAMRIID's Medical Management of Biological Casualties Handbook</u>. 4rth ed. Fort Detrick, Frederick, Maryland: International Medical Publishing, Inc., 2001. ISBN-13: 978-1588081629.	Features descriptions of toxicological mechanisms caused by biological hazard.
United States Coast Guard. <u>Chemical Hazards Response Information System: Hazardous Chemical Data Manual (CHRIS Manual)</u>. U.S. Department of Transportation, 1999. ISBN: 0-16-049953-4.	Features a resource for scene reference. Operating considerations include: Quantity of chemicals discussed, suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development, particularly suited for toxic industrial chemicals, and does not address military agents. Online access: http://purl.access.gpo.gov/GPO/LPS28226
United States Department of Energy. <u>Emergency Responder Radioactive Material Quick Reference Sheet</u>. U.S. Department of Energy Transportation Emergency Preparedness Program (TEPP), 2006.	This job aid is a quick reference to assist emergency responders in identifying preliminary safety precautions that should be taken during the initial response phase after arrival at the scene of an incident involving radiological material. In addition to this quick reference sheet, free training with valuable course material is available through the TEPP Modular Emergency Response Radiological Transportation Training (MERRTT) Program. For more information, go to http://www.em.doe.gov/TEPPPages/TEPPTraining.aspx
United States Department of Transportation, Transport Canada, and Secretariat of Communications and Transportation of Mexico. <u>Emergency Response Guidebook 2008</u>. Labelmaster, 2008.	Features a resource for scene reference. The Emergency Response Guidebook (ERG2008) was developed jointly by the US Department of Transportation, Transport Canada, and the Secretariat of Communications and Transportation of Mexico (SCT) for use by firefighters, police, and other emergency services personnel who may be the first to arrive at the scene of a transportation incident involving a hazardous material. It is primarily a guide to aid first responders in (1) quickly identifying the specific or generic classification of the material(s) involved in the incident, and (2) protecting themselves and the general public during this initial response phase of the incident. The ERG is updated every three to four years to accommodate new products and technology. Can be obtained via web at http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/erg2008_eng.pdf Details of chemicals discussed. Suitable for reference at the scene of an incident and as a reference resource during preplanning, training, and exercise development.

References	Comments
Venzke, Ben N. <u>First Responder Chem-Bio Handbook</u>. Tempest Publishing, 1998. ISBN-13: 978-0966543704.	Features descriptions of military generated chemicals. Operating considerations include: quantity of chemicals discussed, and it is a reference resource during preplanning and exercise development.
Viccellio, Peter, ed. <u>Handbook of Medical Toxicology</u>. 1st ed. Little Brown & Co., 1993. ISBN-13: 978-0316902472.	Features descriptions of toxicological mechanisms. Operating considerations include: Used for preplanning, training, and exercise development.
Walsh, Donald W. ed., Hank T. Christen, Geoffrey T. Miller, Christian E. Callsen Jr., Frank J. Ciffuffo, and Paul M. Maniscalco. <u>National Incident Management System: Principles and Practice</u>. 1st ed. Jones & Bartlett Publishers, 2005. ISBN-13: 978-0763730796.	Features reference for planning and training. Operating considerations include: Used for preplanning, training, and exercise development.
Yaws, Carl. <u>Matheson Gas Data Book</u>. 7th ed. McGraw-Hill Professional, 2001. ISBN: 0071358544.	Features limited descriptions of toxicological mechanisms. Operating considerations include: Quantity of chemicals discussed, and it is a reference resource during preplanning, training, and exercise development.