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Fire & Rescue Division Hazardous Materials Section

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SUMMARY OF CHANGES REGARDING REVISION TO HAZ-MAT STANDARDIZED EQUIPMENT LIST

>> 2012 Edition <<

[For Inspection Purposes Only]

This document (Bulletin # 1.1) captures and lists all changes made to the FIREScope *Hazardous Materials Standardized Equipment List (SEL)* during the [latest \(2012\) revision cycle](#). THIS DOCUMENT IS NOT TO BE USED nor INTERPRETED TO BE an official announcement of changes to the inventory items as described in the SEL. Official changes to the SEL must be done through a recognized revision process by FIREScope.

Data provided in this document is based upon findings at the conclusion of Hazardous Materials Team Typing inspections, and the final decision of acceptance regarding all changes made by the FIREScope HazMat Specialist Group. It has been noted that many FIREScope SEL inventory items need updating, language alteration, or recommendations for deletion. During this [2012 revision cycle](#) there were many influencing factors, including the discovery that some items are no longer available from manufacturer, or that Standards Language (such as NFPA) has changed performance requirements, or that technology has advanced to a degree that it has made some stipulated requirements moot (i.e. "MODEM" requirement was deleted because it is a standard capability now, "floppy discs" requirement was removed as technology has made them obsolete). Monitoring and documenting these recommended changes will be a continuous and on-going process for each revision cycle, and changes to the SEL for each specific revision cycle will be captured in a separately numbered BULLETIN.

This list captures all notations for these changes and/or the principle language additions or changes, and are indicated in **red type or red-strikeout** for the [2012 edition](#) of the SEL.

GLOBAL CHANGES and GENERAL CHANGES TO SECTIONS:

Page or Section	Global Changes and Section Changes	
GLOBAL	Change all references of HMRT Types from Roman Numerals (I, II, III) to Arabic Standard (1, 2, 3) .	
GLOBAL	Delete all references to NFPA Standard # 471 . (It was absorbed into NFPA Standard 472 in 2007).	
GLOBAL	REMOVE all “NA” abbreviations in the right hand three columns (indicating the item is “Not Applicable”), and leave box blank or empty.	
PART TWO, Page 32	<p>Electronic References, Industrial and WMD Chemicals: Amend second to last sentence and Delete last sentence:</p> <p>Some electronic versions of these databases are now becoming available from multiple sources. for Palm Pilots, thumb drives, and miniature CD’s, or can integrate to a Palm Pilot from the database which has been downloaded to a computer hard drive. (Rev2012)</p>	
PART TWO, Page 45	<p>Cellular Phone: Delete second sentence, and Amend third sentence:</p> <p>Standard Cell Phone: <u>CPAS</u> (Cellular Priority Access Service) - Allows priority access during a crisis or a disaster to ensure critical emergency response services can be provided by the government; BROADBAND – Referring or pertaining to an analog circuit that provides more bandwidth than a voice grade telephone line. Broadband channels are used for high-speed voice and data communications, radio and television broadcasting, some local and data networks; <u>PCS</u> (PERSONAL COMMUNICATION SYSTEM) – a digital, wireless, wide-band multiple band technology that can provide phone, fax, modem, and pager in one hand-set, and with one phone number. Digital, voice, and data transmissions can be encrypted and scrambled to allow information being transmitted securely without being intercepted by a third party; <u>ROAMING</u> – a feature that allows you to receive a call when you move into another cellular area. Incoming calls include long distance to the city you are roaming in unless callers use the local roaming access numbers. When using a cellular phone outside of the area which the phone is registered, the caller is considered to be “roaming”. (Rev2012)</p>	
PART TWO, Page 46	<p>Satellite Cell Phone: Delete first sentence and replace with new sentence; Delete other selected terms and statements:</p> <p>Satellite Cell Phone: <u>MDPS</u> (Mobile Packet Data Service) capability; INMARSAT – R (International Telecommunications Satellite Consortium) service which allows users to share 64 kbit/s satellite channels; INTELSAT: Is a satellite communications services provider. IRIDIUM / GLOBALSTAR / ORBCOMM: The three main satellite systems using specific frequencies in the L-Band through which the majority of satellite cell phone connectivity is made, and are the most reliable due to their abundance. ISDN (Integrated Services Digital Network) service should be specified which guarantees transmission speed of 64kbit/s without interruption and by using a dedicated channel, (better than INMARSAT), provides dial on demand; UDI (Unrestricted Digital Information) to support digital faxing and videoconferencing; (Rev2012)</p>	
APPENDIX F, Page 99	Add new Standards References for NFPA:	
	Standard 472 (Rev2012)	Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents
	Standard 1975 (Rev2012)	Station / Work Uniforms for Emergency Services
	Standard 1977 (Rev2012)	Protective Clothing and Equipment for Wildland Fire Fighting
APPENDIX F, Page 99	Add new Standards References for ASTM:	
	F-1563 (Rev2012)	Standard Specification for Tools to Squeeze-off Polyethylene (PE) Gas Pipe or Tubing.

SPECIFIC CHANGES TO S.E.L. EQUIPMENT INVENTORY ITEMS

SEL Item #	Item Name	Action	Resulting Language		
1.2.3	PCB CHEMICALS, Test Kit	Amend Language in the "Certification" column	May be part of Inv. #1.2.1 or #1.2.2 Test Kits (Rev2012)		
1.3.3	SPECTROSCOPY, INFRARED:	Delete Last Sentence	Varies between 23 lbs to 45 lbs, depending upon manufacturer. (Rev2012)		
1.5.1 And 1.5.2	NON-AGENT SPECIFIC Biological Detection : AGENT SPECIFIC Biological Detection:	Amend Language in the "Requirement" Column	1 Kit, Complete, of those listed For #1.5.1 Or #1.5.2 (Rev2012)		
2.2.5	AREA MONITORING:	Add New Item	A four (4) gas or greater system that is capable of communicating real time data remotely to a computer (Added 2012)		
2.2.5	AREA MONITORING:	Assign requirement for Team Types	Type 1	Type 2	Type 3
			Opt	Opt	NA
2.3.1 2.3.2 2.3.3 2.3.4 2.3.5 2.3.6 2.3.7 2.3.8 2.3.9 2.3.10 2.3.11 2.3.12 2.3.13 2.3.14 2.3.15	AMMONIA FREONS HALOGEN GASES PHOSPHINE ALDEHYDES ARSINE CARBON DIOXIDE CARBON MONOXIDE CYANIDES ETHYLENE OXIDE HALOGEN ACID VAPORS HYDROGEN SULFIDE NITRIC OXIDE, NITROGEN DIOXIDE SULFUR DIOXIDE VOLATILE ORGANIC COMPOUNDS	For Specialty Gas Detection, - Amend Language in the "Requirement" column	One device may have capability to detect two or more Specialty Gases (Rev2012)		
3.1.7	PIPETTE, TRANSFER, Graduated:	Change Requirement for Team Types from "R" to "Opt"	Type 1	Type 2	Type 3
			Opt	Opt	Opt
3.1.11	SWAB, STERILE:	Change Item Name and Amend Description	FIBERGLASS CLOTH: SWAB, STERILE: Sterile non-organic single use swab. Cloth of woven fiberglass thread, pliable, for surface swipe samples of contamination; Maintained in EPA sterile 8 oz. jar. (Rev2012)		
		Add Language in the "Requirement" column	1 Box (Minimum of 6 individual units)		

SEL Item #	Item Name	Action	Resulting Language						
3.1.26	SPOON, Plastic:	Amend Description	Polypropylene, with long 7" handle (approximately 7") , disposable, in ¼ teaspoon, ½ teaspoon, 1 teaspoon, and 3 teaspoon sizes. (Rev2012)						
3.1.27 3.1.28 3.1.29	SCOOP, Small SCOOP, Medium SCOOP, Large	Delete language referencing material and size	polystyrene, nominal 2 ¼" x 4" (Rev2012) polystyrene, nominal 3" x 5" (Rev2012) polystyrene, nominal 4" x 6 ½" (Rev2012)						
3.2.1 3.2.2 3.2.3	PUMP, SYPHON, DRUM, Steel PUMP, SYPHON, DRUM, Plastic PUMP, ROTARY, Transfer, Metal	Add language under "Certification" column	FM or UL Listed Mechanical, or if Electrical must be Intrinsically Safe (Rev2012)						
3.3.20	PHOTO, ASSESSMENT KIT, Digital:	Amend Description	Camera (4 megapixel or better) digital which provides "instant" digital images for analysis by on-scene personnel / Incident Command conducting hazard assessment, and data can be transferred to a computer or printer; can be downloaded to computer and printed. Also to be water resistant or capable of undergoing decontamination. (Rev2012)						
4.3.2	DOSIMETER, TLD or Direct Ion Technology:	Amend Description	DOSIMETER, TLD or Direct Ion Technology: #is A thermo-luminescent dosimeter (TLD) utilizing crystals or film to measure dose, and must be sent to licensed lab for analysis; Are re-useable, but some have a limited shelf life (6 months). Direct Ion Technology uses a direct download to a computer. (Rev2012)						
5.1.1 5.1.2 5.1.3	VAPOR PROTECTIVE ENSEMBLE, Industrial Chemicals: VAPOR PROTECTIVE ENSEMBLE, Flash Fire Escape: VAPOR PROTECTIVE ENSEMBLE, Liquid Gas Protection:	Change all three "NA" to "Opt" for Type 3 Team Requirement	NA Opt (Rev2012)						
5.2.1 5.2.2	LIQUID SPLASH PROTECTIVE, NFPA 1992: LIQUID SPLASH PROTECTIVE, NFPA 1994, Class 3:	Add language to "Certification" column	NFPA 1992 NFPA 1994, Class 3 (Class 2 will Satisfy)						
5.3.1	LIMITED USE, Splash Protective:	Amend language to Description	With at least bond or sealed seams (not simple stitch or surged); Liquid tight zipper; Two for each assigned member. Can be an apron, two piece garment, or coverall type splash protective garment. (Rev2012)						
6.1.7	RADIOLOGICAL, Protective Glove:	Delete (Remove) item from SEL	RADIOLOGICAL Protective Glove: Lead lined glove of butyl or nitrile rubber. Excellent for 100% blockage of alpha and beta particles, provides limited protection for gamma radiation. (DELETED 2012)						
6.2.2	BOOTIE, OUTER PROTECTIVE:	Change "R" to "Opt" for all three team types	<table border="1"> <thead> <tr> <th>Type 1</th> <th>Type 2</th> <th>Type 3</th> </tr> </thead> <tbody> <tr> <td>R Opt (Rev2012)</td> <td>R Opt (Rev2012)</td> <td>R Opt (Rev2012)</td> </tr> </tbody> </table>	Type 1	Type 2	Type 3	R Opt (Rev2012)	R Opt (Rev2012)	R Opt (Rev2012)
Type 1	Type 2	Type 3							
R Opt (Rev2012)	R Opt (Rev2012)	R Opt (Rev2012)							

SEL Item #	Item Name	Action	Resulting Language
6.4.1	UNDERGARMENT, FIRE RESISTANT:	Amend language to Description, and use accurate NFPA Title Names or each Standard	Long sleeve jumpsuit style garment, one or two piece, with or without pockets, of fire resistant material. (Nomex®, PBI®, Kevlar® or blend) Compliant to one of the following NFPA Standards: 2112 – “Flame Resistant Garments for Protection of Industrial Personnel Against Flash Fire ” - Or - 1975 – “Station / Work Uniforms for Fire and Emergency Services ” - Or - 1977 – “Protective Clothing and Equipment for Wildland Fire Fighting ” (Rev2008) (Rev2012)
7.1.3	SPECIALTY TYPE, Printed:	Change “NA” to “Opt” for Type 3 Team requirement	NA Opt (Rev2012)
7.1.4	REGULATORY TYPE, Government Codes, Ordinances:	Regarding Technical References, Add CFR to the “Certification” column	1 each of: CFR 49; CFR 29; Appropriate NFPA standards
7.1.6	WMD Chemical/Biological Substances:	Amend language to Description	Printed or Electronic: Technical data, some guidelines, some first aid information. (Rev2012) (See Appendix E, Chart #6)
7.2.3	SPECIALTY TYPE, Electronic:	Change “NA” to “Opt” for Type 3 Team Requirement	NA Opt (Rev2012)
7.4.9	HARDWARE, COMPUTER MODEM:	Delete (Remove) item from SEL	HARDWARE, COMPUTER, MODEM: Insure that a high quality high speed General Packet Radio Service (GPRS) modem is installed. (DELETED 2012)
7.4.10	HARDWARE, Floppy Disc Drive:	Delete (Remove) item from SEL	HARDWARE, Floppy Disc Drive, 2HD: (DELETED 2012)
7.4.13	SOFTWARE, OPERATING SYSTEM:	Amend language to Description	IBM/Windows or Apple Macintosh basic operating system platform. operating system not to be more than two versions old at any time. (Rev2012)
8.1.1 8.1.2	LIGHT AMPLIFICATION, Scope, Basic: LIGHT AMPLIFICATION, Scope, Interchangeable:	Amend language in “Certification” column	Generation II or III Better Technology (Rev2012)
9.2.8	MERCURY KIT, Clean Up, Small Spill:	Amend language to Description	ABSORBENT SPONGE – Mercury Kit: Consists of two basic parts: Mercury absorbing sponges, and approximately 500 gram container of Mercury absorbing powder. Some kits also include a hand operated suction pump. (Rev2008) (Rev2012)
9.3.13	CLAMP, PIPE, GAS, Line, Mechanical:	Amend language to Description	Used for squeezing shut natural gas lines with diameters up to 2” and with pressures not exceeding 75psi. on the low pressure (residence) side of utility regulator; Nominal 2” pipe diameter, mechanically operated.

SEL Item #	Item Name	Action	Resulting Language
		Add reference in "Certification" column	ASTM F-1563 (Rev2012)
9.3.14	CLAMP, PIPE, GAS, Line, Hydraulic:	Correct Item Name	PATCH CLAMP, PIPE, GAS, Line, Hydraulic:
		Add reference in "Certification" column	ASTM F-1563 (Rev2012)
9.3.15 9.3.16	PATCH, PIPE, LIQUID, Pneumatic, Flange: PATCH, PIPE, LIQUID, Pneumatic, Bandage:	Add language in "Requirement" column	1 Kit Either One Will Satisfy Requirement (Rev2012)
9.3.24	PATCH, DRUM, LIQUID, Pneumatic:	Amend language to first sentence in Description	Small rubber patches of nominal 4" x 4", 4" x 9", and 7" x 7", held in place by strap a strapping system; and ratchets, and/or Velcro® straps; Patch inflated to stop leak.
9.3.29	PLUGS, TAPERED STOPPER, LIQUID:	Amend language in "Requirement" column	1 Each of 2 Either Size (Rev2012)
		Amend language in "Certification" column	Must Consist Of Tapered Plug: One – 3" dia tapered plug, And or One – 4" dia. tapered plug (Rev2008) (Rev2012)
9.3.31	PLUGS, BALL or HALF-ROUND, LIQUID:	Amend language in "Requirement" column	1 Each of 2 Of Either Size (Rev2012)
		Amend language in "Certification" column	Must Consist Of Ball or Half-Round: One – 3" or One – 4" (Rev2008) (Rev2012)
9.3.32	PLUGS, "T" BOLT, LIQUID, COMPRESSION:	Amend language in "Requirement" column	1 Each of 2 Either Size Unit (Rev2012)
		Amend language in "Certification" column	Must Consist Of "T" Bolt Plug: Two – 3" or larger, square curved plate (Rev2012)
10.2.5	BRUSHES, CAR WASH TYPE, Long Handle	Amend language to Description	Soft bristled wand type brush, nominal with fixed or adjustable handle to 3 feet minimum. May come with garden hose connection to supply a flow of water at brush end. (Rev2012)
10.2.12	TRAFFIC CONES, Ordinary:	Amend language to Description	TRAFFIC CONES/DELINEATORS, Ordinary: Nominal Minimum 18" to 28" high, fluorescent red.
10.2.13	TRAFFIC CONES, Ordinary, Reflective:	Amend language to Description	TRAFFIC CONES/DELINEATORS, Ordinary, Reflective: Nominal Minimum 18" to 28" high fluorescent red, with reflective bands, or warning bands "DO NOT ENTER" or "KEEP OUT".

SEL Item #	Item Name	Action	Resulting Language
10.2.15	SOAP or DETERGENT, SOFT:	Amend language to Description	SOAP or DETERGENT , SOFT, Biodegradable Hypoallergenic, Liquid: In dispense containers. (Rev2012)
10.4.4	DEBRIS COLLECTION UNIT: 35 to 65 gallon capacity:	Delete existing language in "Requirement" column, and	<p align="center">Must Have As Minimum:</p> <p align="center">One – 10.4.4 And One of either: 10.4.5 Or 10.4.6 for a total of 2. (Rev2012)</p>
10.4.5	DRUM, CONTAINMENT UNIT: 85 to 95 Gallon:	Replace with	
10.4.6	DRUM, OVER-PACK UNIT, 110 Gallon:	new language as shown	
11.2.2	PHONE, Satellite:	Delete reference to INMARSAT.	INMARSAT-B minimum , ISDN preferable which increases high speed data flow to 64,000 bps;
13.2.11	PLIERS, LOCKING:	Amend language in "Requirement" column	<p align="center">1 Kit of 4 4 different Sizes OR types, Mix and Match (Rev2012)</p>
13.3.16	NON-SPARKING PLIERS, LOCKING:	Amend language in "Requirement" column	<p align="center">1 Kit of 4 4 different Sizes OR types, Mix and Match (Rev2012)</p>
13.3.1-A 13.3.1-B 13.3.1-C	UNIT 1: Grounding Cable: UNIT 2: Grounding Rod: UNIT 3: Ground Resistance and Bonding Verification:	Re-Number, and Identify each separate component as a Unit as shown	
13.3.1-A 13.3.1-B 13.3.1-C	UNIT 1: Grounding Cable: UNIT 2: Grounding Rod: UNIT 3: Ground Resistance and Bonding Verification Detection:	Insert new language for Unit 3:	UNIT 3: Ground Resistance and Bonding Verification Detection Capability - Analog or digital readout, Intrinsically Safe, range at least 0 - 200 ohm, 3-wire resistance hookup minimum; (Rev2012)
13.3.1-A 13.3.1-B 13.3.1-C	UNIT 1: Grounding Cable: UNIT 2: Grounding Rod: UNIT 3: Ground Resistance and Bonding Verification Detection:	Add new language in "Certification" column	<p align="center">Compliant To: NEC Article 250 and NFPA 70, NFPA 77</p>
13.3.1-C	UNIT 3: Ground Resistance and Bonding Verification Detection:	Add new language in "Requirement" column	<p align="center">Ground Resistance and Bonding Detection may require two separate units</p>
		Add "Opt" for all three Team Type requirements	<p align="center">Opt Opt Opt</p>

NOTE: PLEASE SEE NEXT PAGE FOR HOW NEW SECTION 13.3.1 WILL ACTUALLY LOOK LIKE IN THE S.E.L:

Inv #	Item Name and Description	Requirement	CertificationOr Standard	Type 1	Type 2	Type 3
13.3.1	SYSTEM, GROUNDING AND BONDING, Capability: To Consist Of:	One complete setup as described	Compliant to: NEC Article 250 and NFPA 70, NFPA 77	R	R	R
13.3.1-A UNIT 1: Grounding Cable	- Insulated or non-insulated 3/16" or better carbon steel, 75' minimum with no section less than 25', equipped with either heavy duty "C" clamps, screw bolt clamps, or 3/4" pin point hand clamps on both ends of each length;	Not less than 75'				
13.3.1-B UNIT 2: Grounding Rod	- One (1) of nominal length 4 feet to 6 feet minimum, and nominal diameter d" to 1/2" copper;	Not less than 4'		R	R	R
13.3.1-C UNIT 3: Ground Resistance and Bonding Verification Detection Capability	- Analog or digital readout, Intrinsically Safe, range at least 0 - 200 ohm, 3-wire resistance hookup minimum; (Rev2012)	Ground Resistance and Bonding Detection may require two separate units	Opt	Opt	Opt	

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