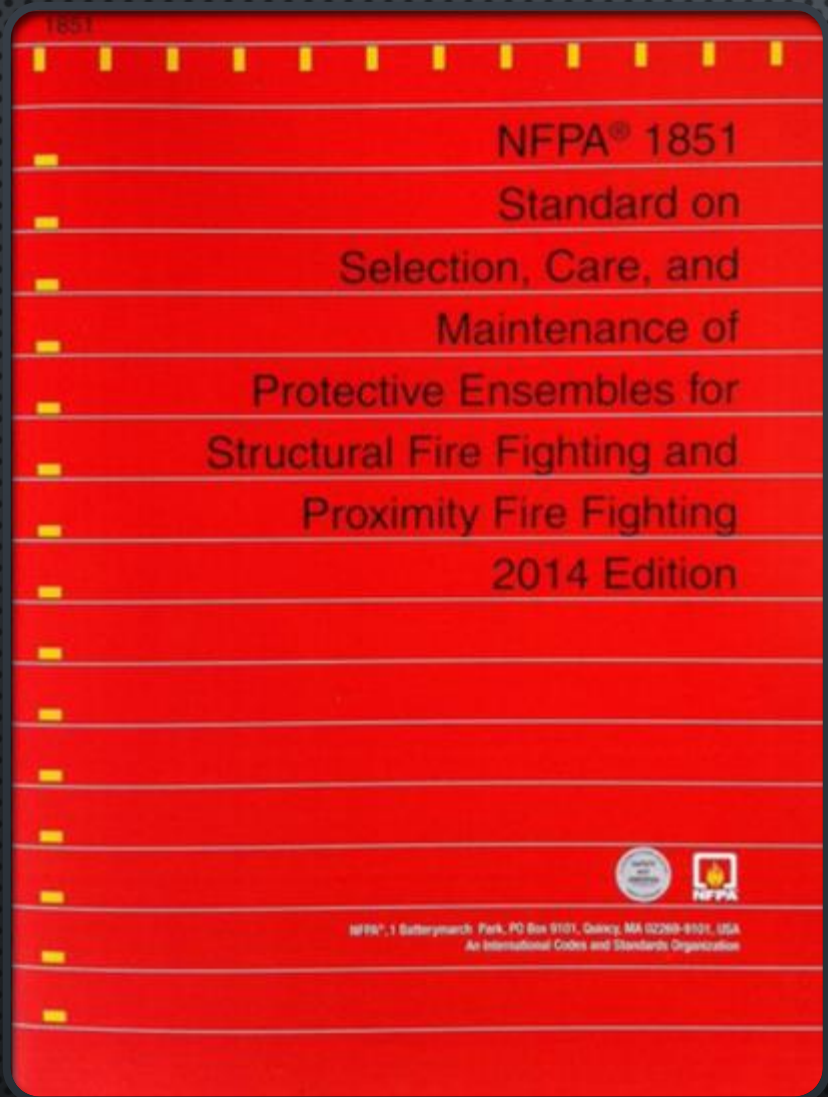


CLEAN AIR-CLEAN BODY-CLEAN GEAR
NFPA 1851 MADE EASY

DANIEL SILVESTRI

911 SAFETY EQUIPMENT LLC

MAY 8, 2019



INTRODUCTION

NFPA 1851 – **NEW EDITION WILL BE BECOME EFFECTIVE IN AUGUST 2019**

- PART 1: ADMINISTRATION AND GENERAL GUIDELINES
- PART 2: RECORDS
- PART 3: SELECTION
- PART 4: INSPECTION
- PART 5: CLEANING
- PART 6: REPAIR
- PART 7: VERIFICATION
- PART 8: ISSUING AND STORAGE
- PART 9: RETIREMENT
- PART 10: SPECIAL INCIDENT PROCEDURE

SCOPE

- NFPA 1851 INDIVIDUALLY ADDRESSES THE FOLLOWING NFPA 1971 ITEMS:
 - COATS
 - PANTS
 - HELMETS
 - GLOVES
 - FOOTWEAR
 - HOODS

FACTS

- HEAT FROM STRUCTURE FIRES ADDS TO THE DANGER OF EXPOSURE TO TOXIC CHEMICALS – WITH EVERY 5 DEGREES IN INCREASED BODY TEMPERATURE, SKIN ABSORPTION RATES CAN INCREASE BY AS MUCH 400%
- HUMAN BODY HAS:
 - 2 MILLION SWEAT GLANDS
 - 5 MILLION HAIR FOLLICLES



Universal Precautions involve the use of protective barriers such as gloves, aprons, masks or protective eyewear which can reduce the risk of exposure of the worker's skin or mucous membranes to potentially infective materials



The Manufacturer(s) of the element shall be contacted anytime there is a question regarding cleaning or decontamination.



When establishing Routine or Advanced Cleaning guidelines, the Organization shall examine the Manufacturer(s) label and user information provided by the manufacturer(s)

GENERAL INFORMATION

CLEANING LEVELS

- ROUTINE / ON SCENE MITIGATION
- ADVANCED (SANITIZATION)
- SPECIALIZED (ISP)



CLEANING REQUIREMENTS

- ROUTINE CLEANING / ON SCENE MITIGATION

CLEANING REQUIREMENTS

- ADVANCED CLEANING
 - NEVER USE BLEACH
 - WATER TEMP NO GREATER THAN 105
 - EXTRACTION G-FORCE NO GREATER THAN 100
 - CLEANING AGENT PH RANGE 6.0PH TO 10.5PH
 - WASH LINERS SEPARATELY - INSIDE OUT
 - MANDATORY 1X PER CALENDAR YEAR REQ
 - WILL CHANGE TO 2X PER CALENDAR YEAR IN 2019



ADVANCED CLEANING INFORMATION

- SEPARATE OUTER SHELL FROM LINER
- INVERT LINER SO QUILT IS FACING ON OUTSIDE
- SECURE ALL CLOSURES (VELCRO, HOOK & DEES, ZIPPER)
- DRD DOES NOT HAVE TO BE REMOVED IF CLOSURES ARE SECURE.
- WASH OUTER SHELLS WITH OUTER SHELLS
- WASH INNER LINERS WITH INNER LINERS
- HOODS CAN BE WASHED WITH LINERS
- AIR DRY

CLEANING REQUIREMENTS

- SPECIALIZED CLEANING

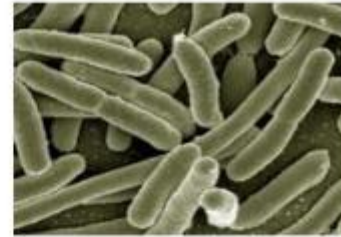


Note: Upcoming revision of NFPA 1851 will allow maximum water temperature of 140° F for bed bugs / bio contamination

NEW CLEANING VERIFICATION

Target Contaminants

- Biological
 - *Klebsiella pneumoniae*
 - *Staphylococcus aureus*
- Heavy metals
 - Antimony, arsenic, cadmium, chromium, cobalt, lead
- Semi-volatile organic compounds
 - PAHs, Phthalate, Phenols



K.pneumoniae

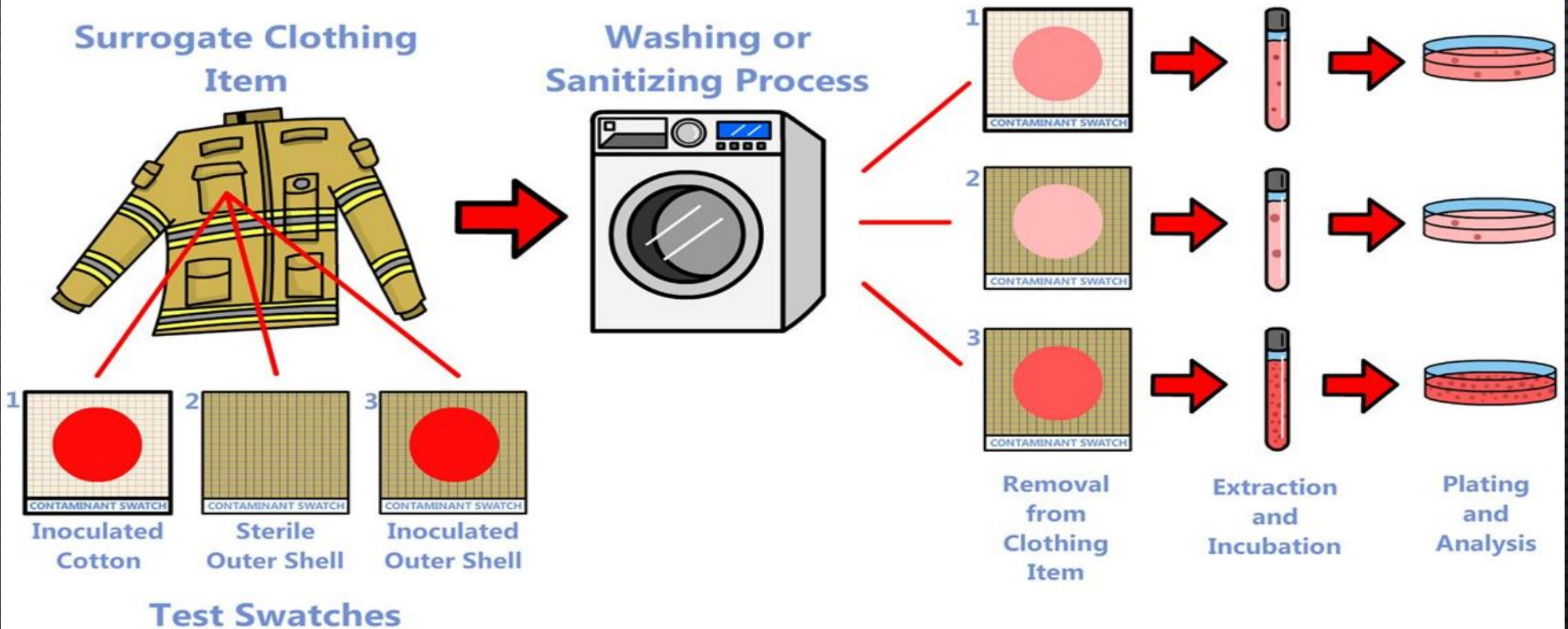


S. aureus

Metal	TRI 1995	UL 2010	UKy 2014	IPP 2015	EKU 2015
Antimony (Sb)		5.2	52.2	9.5	
Arsenic (As)		0.45	20.7	2.1	
Barium (Ba)	885	20.5	297	35.5	
Cadmium (Cd)	106		4.12	10.5	1.5
Chromium (Cr)	119	11	76.9	11.6	61.8
Copper (Cu)		21	89.2	34.4	31.5
Lead (Pb)	1085	80	922	32.5	150
Manganese (Mn)		7.8	41.9	7.43	
Nickel (Ni)	19	3.9	31	5.99	
Silver (Ag)			1.29	0.83	
Zinc (Zn)	1309	120	1110	253	

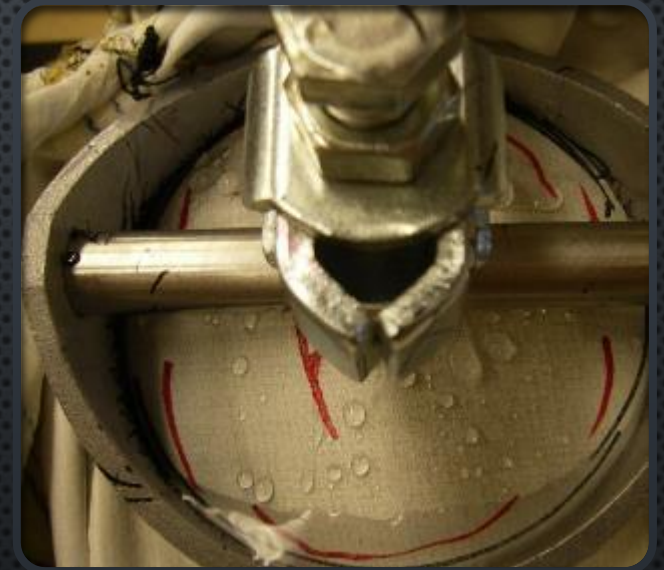
NEW CLEANING VERIFICATION

Bacteria Contamination Experiments



HYDROSTATIC WATER PRESSURE TEST

- PLACE FABRIC (TEXTILE) SIDE DOWN
 - (SHINY SIDE FACING UP)
- CIRCLE & DATE TEST AREA W/
PERMANENT MARKER
- CIRCLE / MARK ALL AREAS OF FAILURE
DURING TEST



RECORDKEEPING

- RECORDS MAY BE COLLECTED AND STORED AS HARD COPIES OR STORED ELECTRONICALLY
- RECORDS SHALL BE MAINTAINED UNTIL THE ELEMENT IS RETIRED AND DISPOSITION HAS OCCURRED
- IF RESOURCES PERMIT RECORDS SHOULD BE KEPT FOR AT LEAST 12 MONTHS PAST RETIREMENT

STORAGE

Protect

Protect PPE From
UV Lighting

Transport

If Transporting,
Place In Plastic
Bag / Gear Bag

Do Not Store

Do Not Store In
Air Tight Bag

Questions ?

