



Arab Fire Safety and Security Academy (AFSSAC)
HAZARDOUS MATERIALS/OPERATIONS
PERFORMANCE STANDARDS
NFPA 472, 2013 Edition

SKILL SHEET PACKAGE

Based on NFPA 472: Standard for
Hazardous Materials/Operations Professional Qualifications, 2013 Edition

June 2016



Arab Fire Safety and Security Academy (AFSSAC)
HAZARDOUS MATERIALS/OPERATIONS
PERFORMANCE STANDARDS
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Performance Test # 1

Emergency Decontamination

PERFORMANCE STANDARD

Demonstrate the ability to perform emergency decontamination on a contaminated person or firefighter.

INSTRUCTIONS

Whenever possible integrate the evaluation of this line item within a consolidated hazardous materials/emergency scenario. This will allow multiple line items to be evaluated effectively in conjunction with other hazardous materials/emergency scenario activities.

EXAMINER NOTE

The candidate shall be able to remove a simulated contaminated person from the contaminated area, wash the contaminated person as necessary, remove contaminated clothing, and coordinate transporting the contaminated person to a facility of higher care.

PREPARATION & EQUIPMENT

Personal protective equipment
Self-contained breathing apparatus (SCBA)
Water supply
Hoses
Brushes
Containment area
Product name
Emergency Response Guidebook (ERG).



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Candidate: _____ **Notes:** _____

Training Provider: _____

Test Site: _____

Examiner: _____

NFPA 472: 5.4.1(4) Performance Test # 1	TEST	RETEST
	Scored points	Scored points
Identify the contaminated person.....2pts		
Remove contaminated person from hot zone/contaminated area.....1pts		
Flood contaminated person with water.....1pts		
Remove contaminated person's helmet (if worn).....1pts		
Remove contaminated person's SCBA backpack assembly (if worn)....1pts		
Remove contaminated person's clothing while maintaining continuous washing:..... 2pts remove gloves and coat remove pants and boots remove hood remove SCBA mask		
Move contaminated person to clean environment and/or ambulance....1pts		
Communicate contaminant information to ambulance and/or hospital personnel.....2pts		
Total Score		
RESULT	<input type="checkbox"/> pass	<input type="checkbox"/> fail

Required to pass:

Candidate must receive a mandatory score of 10 out of 11 points for passing.

Proctor Comments:

Proctor (Print & Sign): _____ **Date** _____

Re-Test Proctor (Print & Sign): _____ **Date** _____

Re-Test candidate (Print & Sign): _____ **Date** _____



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Performance Test # 2

Don/Doff PPE and SCBA

PERFORMANCE STANDARD

Demonstrate the ability to don personal protective equipment (PPE) with SCBA, work in a contaminated area (simulated), and doff the equipment provided to support mission-specific tasks.

INSTRUCTIONS

At this station, you will be required to don personal protective ensemble (PPE). The exact sequence of donning the clothing is not graded. However, once completed, all components must be correctly worn and ready for firefighting operations (minus SCBA). After I have checked your PPE, you will be required to don Self-Contained Breathing Apparatus (SCBA). The method and exact sequence of donning the SCBA is not graded. You will start the SCBA portion of this station wearing your helmet (with loosened chinstrap), hood down, but not your gloves. However, once completed, the SCBA and PPE must be correctly worn and you should be ready for interior fire fighting operations. Once you have completed both portions of this station, you will be instructed to doff your PPE and SCBA and prepare both for reuse.

EXAMINER NOTE

The candidate shall demonstrate the ability to correctly don PPE/SCBA, work in a contaminated area, exit the contaminated area, and doff gear in accordance with AHJ procedure.

PREPARATION & EQUIPMENT

Personal protective equipment
SCBA
Decontamination materials according to Authority Having Jurisdiction (AHJ).



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Examiner: _____

NFPA 472: 6.2.4.1 (3) Performance Test # 2	<u>TEST</u>	<u>RETEST</u>
	Scored points	Scored points
Verify that personal protective equipment and SCBA is ready for service.....2pts		
Don structural firefighting gear or chemical protective clothing (Level B).....P/F		
Correctly don SCBA assembly:		
Open SCBA cylinder valve.....2pts		
Check gauge for operation and verify air cylinder pressure.....1pts		
Verify activation and operation of pass device.....1pts		
Correctly don face piece.....2pts		
Check face piece seal and operation of exhalation valve.....2pts		
Connect face piece to air supply/regulator.....1pts		
Verify all personal protective clothing correctly is in place.....2pts		
Enter contaminated area.....2pts		
Exit contaminated area.....2pts		
Complete decontamination and doffing procedures in accordance with local AHJ policy and procedure.....2pts		
Remove SCBA and place all equipment in a ready state for reuse.....2pts		
Total Score		
RESULT	<input type="checkbox"/> pass	<input type="checkbox"/> fail
	<input type="checkbox"/> pass	<input type="checkbox"/> fail

Required to pass:

Candidate must receive a mandatory score of 19 out of 21 points for passing.

Proctor Comments:

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Re-Test Proctor (Print & Sign): _____ **Date** _____

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Performance Test # 3

Product Control Measures

PERFORMANCE STANDARD

Given examples of hazardous materials/WMD incidents, the operations level responder assigned to perform product control shall identify the options for each response objective and shall meet the requirements as prescribed by the AHJ

INSTRUCTIONS

At this station, you will be given the appropriate tools and equipment and a simulated HazMat release situation. You will be required to demonstrate/perform product control functions. You will be responsible for demonstrating all procedures for product control currently expected of a first responder at the Operations level.

EXAMINER NOTE

The candidate will successfully demonstrate each of the abilities identified within the checklist.

PREPARATION & EQUIPMENT

Personal protective equipment
Self-contained breathing apparatus (SCBA)
Shovels/hand tools
Adsorbent pads/material
Tarps/salvage cover
Sandbags
Fire hose
Water supply
Other equipment/materials may be used based on local resources



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NFPA 472: 6.6.4.1(3) a-j	<u>TEST</u>	<u>RETEST</u>
Performance Test # 3	Scored points	Scored points
Absorption (e.g.: absorbent pads, saw dust, diatomaceous earth, gelling agent).....4 pts Use common, available materials. Avoid contact with the hazardous material. Ensure drains do not become contaminated. Ensure hazardous material is absorbed into absorbent material.		
Adsorption 7 pts Avoid contact with the hazardous material. Approaches spill from uphill/upwind side. Deploys adsorbent material in pools of liquid without splashing. Shovels contaminated adsorbent material into over pack container. Seals and labels over pack container. Places tools/equipment in tool drop area. Advances to contamination reduction corridor.		
Damming (e.g.: sand, dirt, salvage cover, absorbent pads, sewer-storm drain plugs).....3 pts Use common, available materials. Avoid contact with the hazardous material. Ensure dam is not breached.		
Diking (e.g.: dirt, sand bags, absorbent pads, clay).....4 pts Use common, available materials. Avoid contact with the hazardous material. Form a “v” and a “circle” dike. Ensure hazardous material does not enter drains or manholes.		
Dilution (e.g.: applied water stream to dilute substance)..... 4 pts Use common, available materials. Avoid contact with the hazardous material. Ensure the hazardous material is water soluble. Do NOT overflow retention pond of hazardous material.		
Diversion (e.g.: shovels or high pressure water streams, sand bags)..... 4 pts Use common, available materials. Avoid contact with the hazardous material. Ensure hazardous material is diverted away from drains and waterways. Make sure the hazardous material does NOT breach the diversion.		
Retention (e.g.: salvage cover catch-all basin, earthen dams, floating confinement boom, temporary patches on containers)..... 4 pts Define the purpose of retention. Use common, available materials. Avoid contact with the hazardous material Ensure product flow does not exceed retention area.		
Vapor Dispersion (e.g.: water streams, fans)..... 4 pts Avoid contact with the hazardous material. Eliminate ignition sources, if applicable. Use water spray or fans to control dispersion.		



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Move vapors away from threatened area.				
Vapor Suppression:9 pts <ul style="list-style-type: none"> • Avoid contact with hazardous materials • Approach the spill or fire from uphill and upwind • Set nozzle to correct pattern (and GPM flow, if applicable) • Use correct application <ul style="list-style-type: none"> o Banked down o Roll on o Run down • Did NOT disturb foam blanket • Exited hazardous area 				
Remote valve shut-off:3 pts Avoid contact with the hazardous material. Eliminate ignition sources, if applicable. Manipulate valve as instructed to control the flow of the product.				
Total Score				
RESULT	<input type="checkbox"/> pass	<input type="checkbox"/> fail	<input type="checkbox"/> pass	<input type="checkbox"/> fail

Required to pass:

Candidate must receive a mandatory score of 42 out of 46 points for passing.

Proctor Comments:

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Re-Test Proctor (Print & Sign): _____ **Date** _____

Re-Test candidate (Print & Sign): _____ **Date** _____



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Performance Test # 4

Application of Foam

PERFORMANCE STANDARD

Using class B foam or simulated vapor suppressing agent and foam equipment furnished by the authority having jurisdiction, demonstrate the proper application of the fire-fighting foam(s) or vapor suppressing agent(s) on a spill or fire involving hazardous materials.

INSTRUCTIONS

At this station, given fire fighting foam or vapor suppressing agents, a fire department pumper and foam application equipment and a simulated hazardous materials fire you will operate as a member of a team to demonstrate proper application of foam. The exam coordinator will indicate the type(s) of foam application you will perform from the list below. At this station, given foam concentrates or vapor suppressing agents; a foam proportioning device; water supply; and an attack line; you will be required to operate as a member of a team to mitigate a HazMat product release. You must select the proper type of foam concentrate or vapor suppressing agent for the released product, assemble foam stream components, and then apply the foam stream on the product to create and maintain a foam blanket to control the release. Your team must maintain a foam stream for protection and continue facing the hazard while retreating to a safe haven.

EXAMINER NOTE

The candidate shall demonstrate the ability to properly apply firefighting foam or a vapor suppressing agent. The agent application should be sufficient to prevent re-ignition, and provide safety to the team at all times.

PREPARATION & EQUIPMENT

Personal protective equipment
SCBA (CO to determine if on air)
Pump apparatus
Attack line
Foam proportioner/educator
Foam compatible nozzle
Foam concentrate (*or simulated foam product*)
Water supply.



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NFPA 472: 6.6.4.1(1) Performance Test # 4	<u>TEST</u>		<u>RETEST</u>	
	Scored points		Scored points	
Approach the spill or fire from uphill and upwind.....2pts				
Coordinate the attack team's advancement toward the fire so that a smooth and safe approach is maintained.....2pts				
Set nozzle to correct pattern (<i>and GPM flow, if applicable</i>)..... 2pts				
Use correct application procedures to effectively control vapors or fire...2pts				
Demonstrate application of a foam blanket over a fuel spill using the following techniques:				
Roll on method..... 1pts				
Bank down method..... 1pts				
Rain down method..... 1pts				
Apply properly proportioned foam to the surface of the fuel and create and maintain a foam blanket.....2pts				
Extinguish the fire and prevent re-ignition.....2pts				
Maintain team protection with a foam stream.....2pts				
Face the hazard until the team has completely retreated to a safe haven..... 1pts				
Total Score				
RESULT	<input type="checkbox"/> pass	<input type="checkbox"/> fail	<input type="checkbox"/> pass	<input type="checkbox"/> fail

Required to pass:

Candidate must receive a mandatory score of 16 out of 18 points for passing.

Proctor Comments:

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Re-Test candidate (Print & Sign): _____ Date _____



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Performance Test # 5

Select PPE

PERFORMANCE STANDARD

The candidate, given a hazardous materials, an ERG, a selection of PPE, shall choose the PPE ensemble needed to handle a leak/spill of the material.; identify and complete the reporting and documentation requirements consistent with the emergency response plan or SOP's regarding Personal Protective Equipment.

INSTRUCTIONS

At this station, you will be provided with a tactical scenario representing a HazMat incident. You will also be provided with an 11" x 17" HazMat Tactical Worksheet and a copy of the DOT Emergency Response Guide (ERG). You should complete all portions of the HazMat Tactical Worksheet as if you are the first responder on the scene and are temporarily in command until such time as an officer of a higher rank arrives. You should document all assessment and reporting requirements on the HazMat Tactical Worksheet. Some of the things to complete include – but **NOT** limited to – level of PPE & respiratory protection required, method(s) of controlling the product, etc. Complete as much of the form as you can from the information provided in the scenario and from what you can derive from the ERG.

PREPARATION & EQUIPMENT

HazMat scenario
HazMat Tactical Worksheet
Pencil
Emergency Response Guide (ERG)



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Examiner: _____

NFPA 472: 6.2.5.1 Performance Test # 5	TEST		RETEST	
	Scored points		Scored points	
1. Looks up correct PPE ensemble to use for specified chemical in ERG2 pts				
2. Explains reason for choosing particular PPE ensemble1 pts				
3. Successfully completes all steps within 30 minutes 2 pts				
4. Performs suit inspection for:4 pts a. Tears, holes, discolorations, suit integrity d. Seams/stitches e. Boots & glove attachments				
5. While seated, places feet into suit and gathers suit around waist 2 pts				
6. Is cautious regarding stepping on suit1 pts				
7. Dons chemical boots1 pts				
8. Dons PPE1 pts				
9. Assistant fastens all snaps, zippers & flaps2 pts				
10. Performs a physical task (such as threading a nut into a bolt) demonstrating ability to perform work while in PPE2 pts				
11. Doffs suit2 pts				
12. Records use, documents any repairs and requests testing2 pts				
13. Stores PPE appropriately1 pts				
Total Score				
RESULT	<input type="checkbox"/> pass	<input type="checkbox"/> fail	<input type="checkbox"/> pass	<input type="checkbox"/> fail

Required to pass:

Candidate must receive a mandatory score of 20 out of 23 points for passing.

Proctor Comments:

Proctor (Print & Sign): _____ **Date** _____

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Performance Test # 6

Establishing and Utilizing a Technical Decontamination Corridor

PERFORMANCE STANDARD

Given the personal protective equipment provided by the AHJ, the operations level responder assigned to use personal protective equipment shall demonstrate the ability to don, work in, and doff the equipment provided to support mission-specific tasks and shall meet the following requirements: [NFPA 472 6.2.4.1(4)]

(4) Demonstrate local procedures for responders undergoing the technical decontamination process.

INSTRUCTIONS

Given a scenario and the personal protective equipment, emergency response and hazardous materials response equipment including decontamination equipment provided by the AHJ, you shall demonstrate local procedures for responders undergoing the technical decontamination process. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE:

The candidate will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

Hazardous materials incident scenario
Personal protective equipment provided by the AHJ
Emergency response and hazardous materials response equipment
Decontamination equipment



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Candidate: _____ **Notes:** _____

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NFPA 472: 6.2.4.1(4)	<u>TEST</u>	<u>RETEST</u>
Performance Test # 6	Scored points	Scored points
Based on the given scenario, the candidate shall:		
a) Select the appropriate decontamination protocol.....2pts		
b) Properly set up a decontamination corridor.....2pts		
c) Select the appropriate PPE/CPC for the decontamination team..... 1pt		
d) Conduct the technical decontamination process.....2pts		
e) Maintain proper safety control measures at all times.....2pts		
f) Implement local policies and procedures per AHJ.....2pts		
Total Score		
RESULT	<input type="checkbox"/> pass <input type="checkbox"/> fail	<input type="checkbox"/> pass <input type="checkbox"/> fail

Required to pass:

Candidate must receive a mandatory score of 9 out of 11 points for passing.

Proctor Comments:

Proctor (Print & Sign): _____ **Date** _____

Re-Test Proctor (Print & Sign): _____ **Date** _____

Re-Test candidate (Print & Sign): _____ **Date** _____