

HAZARDOUS MATERIALS TECHNICIAN

SKILL SHEET PACKAGE

Based on *NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 2013 Edition.



ALABAMA FIRE COLLEGE

JULY 2014
REVISED 02/09/17

ALABAMA FIRE COLLEGE

Hazardous Materials Technician

Instructional JPR Verification Sheet

Full Name: _____ Fire Department: _____

This Instructional JPR Verification Sheet is to be used in conjunction with the Alabama Fire College Hazardous Materials Technician Skill Sheets. These skills meet all the requirements of NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 2013 edition. Each of these skills should be taught and assessed during the course. This form must be submitted by the Instructor for Certification.

Skill Sheet	Primary Task	JPR(s) Covered
01	Perform Duties of a HazMat Branch or Group ICS Position-Research Officer	7.1.2.2(3)(a); 7.1.2.2(5)(c); 7.6.3(2)
02	Donning Level A	7.1.2.2(3)(b); 7.4.2(3)(4)
03	Donning Level B	7.1.2.2(3)(b); 7.4.2(3)(4)
04	Containing Leaks and Drum Over Packing	7.1.2.2(3)(c); 7.1.2.2(5)(a); 7.4.3(3); 7.4.3(4)
05	Contain Leak in Pressurized Container	7.1.2.2(3)(c); 7.1.2.2(5)(a); 7.4.3(1); 7.4.3(2)
06	Install Dome Cover Clamp on 306/406	7.1.2.2(3)(c); 7.1.2.2(5)(a); 7.4.3(7-9)(10)(a)
07	Perform Technical Decontamination on Entry Team Member	7.1.2.2(3)(d); 7.1.2.2(5)(a); 7.4.5(1)
08	Perform Technical Decontamination on Non-Ambulatory or Ambulatory Patient	7.1.2.2(3)(d); 7.1.2.2(5)(a); 7.4.5(2)
09	Perform Mass Decontamination	7.1.2.2(3)(d); 7.1.2.2(5)(a); 7.4.5(3)
10	Field Maintenance of Monitoring Equipment	7.2.1.3.6
11	Demonstrate Methods for Collecting Samples and Field Analysis of Gas, Liquid, or Solid	7.1.2.2 (a)(b); 7.2.1.3.5(1-12); 7.2.1.5
12	Radiation Detector Maintenance and Detection	7.2.1.3.6; 7.2.3.5
13	Assists in Incident Critique	7.1.2.2(5)(b)(c)
Course Location:		Course Date:
Instructor Printed Name:		Instructor Signature:
Candidate Printed Name:		Candidate Signature:



Perform Duties of Haz Mat Branch or Group ICS Position – Research Officer

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous materials Incidents*, 7.1.2.2(3)(a); 7.1.2.2(5)(c); 7.6.1; 7.6.3; 2013 Edition

AFC & PSC

Hazardous Materials Technician

HMT Skill Sheet -01

Working as a member of a four-member team, the candidate, given a hazardous material (1 of 3 standard chemicals - chlorine, ammonia or propane) and three printed technical reference materials shall collect and interpret hazard and response information and will complete a blank product sheet. The completed product data sheet should identify the chemical by name, cas#, UN ID#, and NFPA 704 designation. The EPA SARA Reportable Quantity/CERCLA Reportable Quantity and Threshold Planning Quantity should be listed if applicable. Hazardous chemical properties should be identified in all 3 references by the topics of Flammability, Reactivity, Toxicity, Physical, Compatibility and Incompatibility. The completed product data sheet could be used to complete a Site Safety and Control Plan (ICS 208 HM form) as part of an Incident Action Plan and also for documentation in debriefing responders and also utilized in formal critique.

Reference Materials library (consisting of at least 3): NIOSH Pocket Guide, CAMEO Chemical Data Sheet and Coast Guard CHRIS Manual

If Skill Sheet 1 is selected, 2nd Skill Sheet tested will be Skill Sheet 10, 11, 12, or 13
 A Product Data Sheet and the assigned chemical will be supplied in the Test Package to the Proctor/Evaluator

Expected time to complete skill(s) is 60 minutes

Performance Steps	Test		Retest	
Safely performs the following steps:	P	F	P	F
1. Uses a minimum of three reference sources (one per team member)				
2. Identifies CAS#				
3. Identifies UN ID # and Hazard Class(es)				
4. Identifies EPA RQ and TPQ quantities				
5. Identifies NFPA 704 designation				
6. Identifies flammability properties				
7. Identifies physical properties				
8. Identifies reactivity properties				
9. Identifies toxicity properties				
10. Identifies incompatibilities				
Candidate must successfully perform 7/10 steps including ALL CRITICAL POINTS	Score: __/10		Score: __/10	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:	Overall Skill Sheet Re-Test Score		
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



Donning Level A Ensemble

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(b), 7.4.2(3)(4), 2013 Edition

Hazardous Materials Technician

HMT Skill Sheet - 02

As a member of a two-person team, the candidate, given a hazardous materials scenario (1 of the 2 listed), a Level A suit along with boots, tape, hard hat and SCBA with face piece, shall demonstrate proper donning, use of and doffing of PPE with the assistance of team member in donning/doffing.

If Skill Sheet 2 is selected, 2nd Skill Sheet tested will be Skill Sheet 4 or 5

Scenario Assignment (Evaluator will choose one, all students will test same scenario):

- 1) making repairs to and overpacking a leaking drum of hazardous material that is hazardous by vapor skin absorption **OR**
- 2) a “visibly” leaking 150-lb or a 1-ton chlorine cylinder in the field with air concentrations in excess of 1000 ppm.

Expected time to complete skill(s) is 30 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
1. Inspects SCBA				
a. Proper cylinder pressure				
b. Leak Test - SCBA				
c. Low pressure alarm functions correctly				
d. Harness and straps in good shape				
e. Inspects face piece				
2. Inspects suit for				
a. Tears				
b. Holes				
c. Discoloration				
d. Seams/stitches				
e. Boot & glove attachments				
f. Overall suit integrity				
3. Dons SCBA, turns SCBA on				
4. While seated, places feet into suit & gathers around waist, avoids walking around or stepping on suit				
5. Dons chemical boots (taping around leg cuff optional)				
6. Dons inner gloves				
7. Dons & adjusts SCBA face piece, dons helmet (optional per AHJ SOPs)				
8. Places arms into sleeves				
9. Dons outer gloves & taping (optional per AHJ SOPs)				
Performance Steps Continued				



Donning Level A Ensemble

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(b), 7.4.2(3)(4), 2013 Edition

Hazardous Materials Technician

HMT Skill Sheet - 02

As a member of a two-person team, the candidate, given a hazardous materials scenario (1 of the 2 listed), a Level A suit along with boots, tape, hard hat and SCBA with face piece, shall demonstrate proper donning, use of and doffing of PPE with the assistance of team member in donning/doffing.

If Skill Sheet 2 is selected, 2nd Skill Sheet tested will be Skill Sheet 4 or 5

Scenario Assignment (Evaluator will choose one, all students will test same scenario):

- 1) making repairs to and overpacking a leaking drum of hazardous material that is hazardous by vapor skin absorption **OR**
- 2) a "visibly" leaking 150-lb or a 1-ton chlorine cylinder in the field with air concentrations in excess of 1000 ppm.

Expected time to complete skill(s) is 30 minutes

Performance Steps Continued:	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
10. Team member assists making SCBA regulator connection to mask; entry person breathes air				
11. Hood is placed over head				
12. Assistant fastens all snaps, zippers & flaps (closure taping optional)				
13. After entry, with help from team member, doffs suit properly (normally performed during decontamination)				
Candidate must successfully perform 10/13 steps including ALL CRITICAL POINTS	Score: __/13		Score: __/13	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:	Overall Skill Sheet Re-Test Score		
	Pass___		Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



AFC & PSC

Hazardous Materials Technician

Donning Level B Ensemble

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(b), 7.4.2(3)(4), 2013 Edition

HMT Skill Sheet - 03

As a member of a two-person team, the candidate, given a hazardous materials scenario (1 of the 2 listed), a non-encapsulating liquid splash suit (suitable for Level B ensemble) along with boots, gloves, tape, hard hat (optional) and SCBA with face piece, shall demonstrate proper donning, use of and doffing of PPE with the assistance of team member in donning/doffing.

If Skill Sheet 3 is selected, 2nd Skill Sheet tested will be Skill Sheet 7, 8, or 9

Scenario Assignment (Evaluator will choose one, all students will test same scenario):

- 1) performing decontamination on a non-ambulatory patient with liquid sulfuric acid contamination **OR**
- 2) performing decontamination on an entry team member dressed in Level A ensemble with liquid contamination of sulfuric acid.

Expected time to complete skill(s) is 30 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
1. Inspects SCBA				
a. Proper cylinder pressure				
b. Leak Test - SCBA				
c. Low pressure alarm functions correctly				
d. Harness and straps in good shape				
e. Inspects face piece				
2. Inspects suit for				
a. Tears				
b. Holes				
c. Discoloration				
d. Seams/stitches				
e. Boot & glove attachments				
f. Overall suit integrity				
3. While seated, places feet into suit & gathers around waist, avoids walking around or stepping on suit				
4. Dons chemical boots. (taping around leg cuff optional)				
5. Dons inner gloves				
6. Places arms into sleeves				
7. Zips or closes suit (taping optional)				
8. Dons & turns on SCBA, secures straps				
9. Dons outer gloves (taping cuffs optional)				
Performance Steps Continued				



AFC & PSC

Hazardous Materials Technician

Donning Level B Ensemble

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(b), 7.4.2(3)(4), 2013 Edition

HMT Skill Sheet - 03

As a member of a two-person team, the candidate, given a hazardous materials scenario (1 of the 2 listed), a non-encapsulating liquid splash suit (suitable for Level B ensemble) along with boots, gloves, tape, hard hat (optional) and SCBA with face piece, shall demonstrate proper donning, use of and doffing of PPE with the assistance of team member in donning/doffing.

If Skill Sheet 3 is selected, 2nd Skill Sheet tested will be Skill Sheet 7, 8, or 9

Scenario Assignment (Evaluator will choose one, all students will test same scenario):

- 1) performing decontamination on a non-ambulatory patient with liquid sulfuric acid contamination **OR**
- 2) performing decontamination on an entry team member dressed in Level A ensemble with liquid contamination of sulfuric acid.

Expected time to complete skill(s) is 30 minutes

Performance Steps Continued:	Test		Retest	
Safely performs the following steps:	P	F	P	F
10. Dons & adjust SCBA face piece with assistance if necessary				
11. Makes SCBA regulator connection to mask with assistance if necessary; student breathes air				
12. Hood is placed over head (taping to face piece is optional) (donning helmet is optional, per AHJ SOPs)				
13. After work performed, with help from team member, doffs suit properly (normally performed during decontamination)				
Candidate must successfully perform 10/13 steps including ALL CRITICAL POINTS	Score: __/13		Score: __/13	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:		Candidate: Print Name or Candidate #	

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



AFC & PSC

Hazardous Materials Technician

Containing Leaks & Drum Overpacking

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(c); 7.1.2.2(5)(a); 7.4.3(3); 7.4.3(4); 2013 Edition

HMT - Skill Sheet - 04

The candidate, working as a member of a two-person team and working in Level A chemical protective clothing (CPC), shall choose the appropriate equipment and demonstrate the ability to contain four common types of leaks associated with 55-gallon drums (nail puncture; forklift puncture; chime leak; leaking closure (bung or top) and one of the three methods of drum overpacking.

Equipment: 55-gallon drums with multiple leaks resulting from nail puncture, forklift puncture, chime leak, leaking closure; Bung wrench; Plug and patching kit; An overpack drums; Level A CPC; SCBA

Expected time to complete skill(s) is 30 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
1. Contains a 55-gallon drum bung leak with drum lying on its side				
a. Tightens leaking bung to contain leak; OR				
b. Contains leak by placing rubber/wooden plug in closure				
2. Contains a 55-gallon drum with nail puncture leak				
a. Contains leak by inserting plug				
b. Applies patch				
3. Contains a 55-gallon drum with chime leak				
a. Contains leak by applying putty, lead wool, or other appropriate method				
b. Positions drum with leak in vapor space				
4. Contains a 55-gallon drum forklift puncture leak				
a. Contains leak using appropriate tools and materials provided				
5. Over packs a leaking 55-gallon drum – CRITICAL POINT				
a. Slide-in method OR				
b. Rolling slide-in method (V-method) OR				
c. Slip over				
6. Verbalizes participation in debriefing of exercise with team member – CRITICAL POINT				
Candidate must successfully perform 5/6 steps including all critical criteria	Score: __/6		Score: __/6	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass____	Fail____
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score	
		Pass____	Fail____
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



Contain Leak in Pressurized Container

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(c); 7.1.2.2(5)(a); 7.4.3(1); 7.4.3(2); 2013 Edition

Hazardous Materials Technician

HMT - Skill Sheet - 05

The candidate, wearing Level-A ensemble and operating as a member of a two-person team and provided with one of the following: a ton-chlorine training cylinder; a 100/150 pound chlorine training cylinder, or three chlorine kits (placed approximately ten feet from chlorine training cylinder) comprising the necessary tools for containing the cylinder leak, shall choose the proper kit and demonstrate the proper method in order to contain the leak presented.

Equipment: 1 – ton chlorine training cylinder; **OR** a 100-pound **OR** 150-pound chlorine training cylinder; 1 – Chlorine A Kit; 1 – Chlorine B Kit; 1 – Chlorine C Kit; full Level A ensemble

Time will start after donning of Level-A ensemble.

Expected time to complete skill(s) is 30 minutes

Performance Steps:	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
1. Correct kit chosen - CRITICAL POINT				
2. Student shall contain <u>ONE</u> of the following leaks below (a-h) - CRITICAL POINT				
a. Fusible plug - OR				
b. Fusible plug threads - OR				
c. Side wall of cylinder - OR				
d. Valve blowout - OR				
e. Valve gland - OR				
f. Valve inlet threads- OR				
g. Valve seat - OR				
h. Valve stem assembly blowout- OR				
3. Student shall demonstrate the ability to perform <u>ONE</u> of the following(a-c) - CRITICAL POINT				
a. Close valves that are open- OR				
b. Replace missing plugs- OR				
c. Tighten loose plugs- OR				
4. Student shall successfully contain leak within time limit - CRITICAL POINT				
5. Student shall verbalize participation debriefing of exercise with team member - CRITICAL POINT				
Candidate must successfully perform ALL steps including CRITICAL POINTS	Score: ___/5		Score: ___/5	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass ___	Fail ___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score	
		Pass ___	Fail ___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:		Candidate: Print Name or Candidate #	

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



Install Dome Cover Clamp on MC 306/DOT 406 Dome Cover

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(c); 7.1.2.2(5)(a); 7.4.3(7); 7.4.3(8); 7.4.3(9); 7.4.3(10)(a); 2013 Edition

AFC & PSC

Hazardous Materials Technician

Skill Sheet HMT- 06

Operating in a two-person team, the candidate, (wearing work uniform including helmet, gloves, eye protection), provided with a placarded (HC 3, UN 1203) cargo tank truck or cargo tank truck simulator and tools appropriate for the scenario, shall choose the proper equipment for the evaluation, effectively demonstrate the proper method to contain the leak presented; shall gather the necessary equipment and demonstrate the ability to properly install a dome cover clamp on a presented MC 306/DOT 406 cargo tank or cargo tank simulator.

Type of Leak: Dome cover leak

Equipment: PPE, dome cover clamp(s), LEL monitor, ground rod, grounding kit, non-sparking hammer

Equipment to be placed 50-100 feet from the placarded (HC 3, UN 1203) MC 306/DOT 406 cargo tank or cargo tank simulator: Dome cover clamp, LEL monitor, complete set of grounding equipment – ground rod, ground clamps, grounding cable, non-sparking hammer

Expected time to complete skill(s) is 30 minutes

Performance Steps:	Test		Retest	
Safely performs the following steps:	P	F	P	F
1. Candidate states: “Full Structural Firefighting Protective Clothing & SCBA is required” -CRITICAL POINT				
2. Approaches cargo tank or simulator in a safe manner				
a. Candidate states “a blanket of foam would be applied on product”				
b. Candidate states “approach would be from upwind and uphill position”				
c. Candidate states “%LEL would be monitored				
3. Establishes ground rod in a uphill, upwind, contamination free location				
4. Makes grounding connection (cargo tank 1 st point of attachment then retreats to grounding rod for 2 nd point of attachment)				
5. Candidate states “vehicle should be stabilized, cribbed, etc.”				
6. Properly installs clamp on dome - CRITICAL POINT				
a. Tightens dome cover clamp				
b. Checks to see if leak is controlled, repositions clamp if necessary				
7. Verbalizes participation in debriefing of exercise with team member – CRITICAL POINT				
Candidate must successfully perform 6/7 steps including ALL CRITICAL POINTS	Score: __/7		Score: __/7	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass ____	Fail ____
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score	
		Pass ____	Fail ____
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



AFC & PSC

Perform a Technical Decontamination on Entry Team Member

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(d); 7.1.2.2(5)(a); 7.4.5(1); 2013 Edition

Hazardous Materials Technician

HMT Skill Sheet - 07

The candidate, operating as a member of a four-person team at a simulated hazardous material incident and given one technician in a (simulated) contaminated Level-A CPC, shall demonstrate how to establish a chemical reduction corridor (CRC) and perform an effective decontamination while wearing Level-B hooded chemical protective clothing (CPC) and a self-contained breathing apparatus (SCBA).

Equipment needed: CRC equipment; four complete Level-B ensembles; and one technician in a Level-A ensemble that is contaminated (contamination may be accomplished by applying dry chemical from a fire extinguisher)

Special Note to EVALUATOR: Evaluator will have to assign each one of the candidates to a position or "Station" listed below within the CRC. CRC can be established by the candidates without donning their face piece and breathing from their SCBA. Once CRC is established and prior to decontamination procedures, candidates must don their face piece and breathe from their SCBA.

Expected time to complete skill(s) is 60 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
Decontaminates Technician				
1. As a team, candidates establish CRC (decon pools, showers, hoses, etc.)				
2. Instructs technician to check air supply and to put tools in tool drop container (Candidate 1; Station 1)				
3. Performs gross decontamination and washes at first decon pool to remove as much contamination as possible (Candidate 1; Station 1)				
4. Performs secondary wash at second pool (Candidate 2; Station 2)				
5. Performs secondary rinse at second decon pool (Candidate 2; Station 2)				
6. Assists technician with CPC removal in de-suiting area (Candidate 3; Station 3)				
7. Places contaminated CPC in proper drum (Candidate 3; Station 3)				
8. Removes SCBA (Candidate 4; Station 4)				
9. Instructs technician to move to medical evaluation area (Candidate 4; Station 4)				
10. Candidate avoids cross contamination				
11. Verbalizes participation in debriefing of exercise with team members – CRITICAL POINT				
Candidate must successfully perform 8/11 steps including ALL CRITICAL POINTS	Score: __/11		Score: __/11	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass ___	Fail ___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score	
		Pass ___	Fail ___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



Perform a Decontamination on Ambulatory or Non-Ambulatory Victim

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(d); 7.1.2.2(5)(a); 7.4.5(2) 2013 Edition

AFC & PSC

Hazardous Materials Technician

HMT Skill Sheet - 08

The candidate, operating as a member of a four-person team at a simulated hazardous material incident, shall demonstrate how to perform an effective decontamination on an ambulatory or non-ambulatory victim using a contamination reduction corridor while wearing Level-B ensemble.

Equipment needed: Contamination Reduction Corridor, Four Level-B ensembles, long back board, dragging sked stretcher or equivalent, rescue mannequin,

Special Note to EVALUATOR: Evaluator will have to assign two of the candidates to "Gross Decontamination" and two candidates to "Victim Wash and Rinse" within the CRC. CRC can be established by the candidates without donning their face piece and breathing from their SCBA. Once CRC is established and prior to decontamination procedures, candidates must don their face piece and breathe from their SCBA.

Expected time to complete skill(s) is 60 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
Decontaminates Non-Ambulatory Victim:				
1. As a team, candidates establish CRC (decon pools, showers, hoses, roller system, etc.)				
2. Performs or assists with gross decontamination (removes clothing, removes personal effects, bags and identifies items appropriately, secures victims property)				
3. Performs or assists with patient wash-down and rinse, verifies effectiveness of decontamination, and transfers patient to EMS				
4. Decon team ensures all contaminated tools and equipment are placed in contaminated drums				
5. Decon team ensures that contaminated run-off is contained in pools or decontamination area				
6. Avoids cross contamination				
7. Verbalizes participation in debriefing of exercise with team members – CRITICAL POINT				
Candidate must successfully perform 6/7 steps including ALL CRITICAL POINTS	Score: __/7		Score: __/7	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:	Overall Skill Sheet Re-Test Score		
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



AFC & PSC

Hazardous Materials Technician

Establish Mass Decontamination Operations

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(d); 7.1.2.2(5)(a); 7.4.5(3) 2013 Edition

HMT Skill Sheet - 09

The candidate, operating as a member of a four-person team at a simulated hazardous material incident, shall establish a mass decontamination line within a contamination reduction corridor while wearing Level-B ensemble.

Equipment needed: Contamination Reduction Corridor, Four Level-B ensembles, hoses, nozzles, garbage cans, disposal bags, redress kits, inflatable or improvised shelter, etc.

Special Note to EVALUATOR: CRC can be established by the candidates without donning their face piece and breathing from their SCBA. Once CRC is established and prior to decontamination procedures, candidates must don their face piece and breathe from their SCBA.

Expected time to complete skill(s) is 60 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
1. As a team, candidates establish mass decontamination line within CRC				
2. Demonstrates process to isolate, secure, and identify victim clothing and personal effects				
3. Demonstrates process to redress, shelter, and triage victims				
4. Decon team demonstrates how all contaminated tools and equipment would be placed in contaminated drums				
5. Decon team demonstrates how contaminated run-off would be confined to smallest area possible				
6. Avoids cross contamination				
7. Verbalizes participation in debriefing of exercise with team members – CRITICAL POINT				
Candidate must successfully perform 6/7 steps including ALL CRITICAL POINTS	Score: __/7		Score: __/7	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:	Overall Skill Sheet Re-Test Score		
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

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Field Maintenance of Monitoring Equipment

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous materials Incidents*, 7.2.1.3.6; 2013 Edition

Hazardous Materials Technician

HMT Skill Sheet - 10

The candidate, given examples of various monitoring equipment, shall demonstrate the field maintenance procedures for start-up, zeroing, fresh air set-up, bump testing, and/or the calibrating of the instrument.

Equipment and Monitors: Equipment to calibrate or verify calibration; the following can be single gas or multi-gas monitors - Carbon monoxide monitor, Combustible gas indicator, Hydrogen Sulfide monitor, and/or Oxygen monitor

Expected time to complete skill(s) is 30 minutes

Performance Steps:	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
1. Turns meter on				
2. Determines what gas(es) meter can detect				
3. Performs zero or fresh air set-up				
4. Performs bump-test to verify functionality				
Candidate must successfully perform 3/4 steps including ALL CRITICAL POINTS	Score: __/4		Score: __/4	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

Note to Evaluator(s): By your signature above, you verify that you are qualified to serve as an Alabama Fire College Evaluator, have followed AFC Skills Testing Policy, and have witnessed that the above candidate has tested the above skills in their entirety.

Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



Demonstrates Methods for Collecting Samples and Field Analysis of Liquid, Solid, or Gas

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous materials Incidents*, 7.1.2.2 (a)(b); 7.2.1.3.5(1-12); 7.2.1.5, 2013 Edition

AFC & PSC

Hazardous Materials Technician

HMT Skill Sheet - 11

The candidate, given examples of various hazardous materials in solid, liquid, or gas form, shall select the appropriate sampling equipment to take a sample of the given material(s) and monitoring equipment to identify and classify and/or quantify the results for each material.

Equipment: Colorimetric tubes and pump, pipets, sample vials, swabs, spatulas, sample bags, pH paper or electronic pH meter, radiation detection instruments, reagents, test strips, samples of hazardous materials (solids, liquids, or gases); the following may be single or multi-gas monitors - carbon monoxide meter, oxygen meter, combustible gas meter, photoionization detector, etc.

Expected time to complete skill(s) is 30 minutes

Performance Steps	Test		Retest	
Safely performs the following steps:	P	F	P	F
LIQUID <u>OR</u>				
1. Collects sample with correct sampling equipment:- CRITICAL POINT				
2. Lists equipment selected to take sample:- CRITICAL POINT				
3. Chooses the correct instrument or instruments for the sample:- CRITICAL POINT				
4. Lists instrument(s) chosen: :- CRITICAL POINT				
5. Correctly quantifies and classifies sample:- CRITICAL POINT				
6. Lists quantifying results and subsequent classification:- CRITICAL POINT				
SOLID: <u>OR</u>				
1. Collects sample with correct sampling equipment:- CRITICAL POINT				
2. Lists equipment selected to take sample: :- CRITICAL POINT				
3. Chooses the correct instrument or instruments for the sample:- CRITICAL POINT				
4. Lists instrument(s) chosen: :- CRITICAL POINT				
5. Correctly quantifies and classifies sample:- CRITICAL POINT				
6. Lists quantifying results and subsequent classification :- CRITICAL POINT				
GAS <u>OR</u>				
1. Collects sample with correct sampling equipment:- CRITICAL POINT				
2. Lists equipment selected to take sample:- CRITICAL POINT				
3. Chooses the correct instrument or instruments for the sample:- CRITICAL POINT				
4. Lists instrument(s) chosen: :- CRITICAL POINT				
5. Correctly quantifies and classifies sample:- CRITICAL POINT				
6. Lists quantifying results and subsequent classification- CRITICAL POINT				
Candidate must successfully perform ALL steps including ALL CRITICAL POINTS	Score: __/6		Score: __/6	



Demonstrates Methods for Collecting Samples and Field Analysis of Liquid, Solid, or Gas

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous materials Incidents*, 7.1.2.2 (a)(b); 7.2.1.3.5(1-12); 7.2.1.5, 2013 Edition

AFC & PSC

Hazardous Materials Technician

HMT Skill Sheet - 11

The candidate, given examples of various hazardous materials in solid, liquid, or gas form, shall select the appropriate sampling equipment to take a sample of the given material(s) and monitoring equipment to identify and classify and/or quantify the results for each material.

Equipment: Colorimetric tubes and pump, pipets, sample vials, swabs, spatulas, sample bags, pH paper or electronic pH meter, radiation detection instruments, reagents, test strips, samples of hazardous materials (solids, liquids, or gases); the following may be single or multi-gas monitors - carbon monoxide meter, oxygen meter, combustible gas meter, photoionization detector, etc.

Expected time to complete skill(s) is 30 minutes

Performance Steps		Test		Retest	
Safely performs the following steps:		P	F	P	F
<p>Evaluator Notes</p>					
Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score			
		Pass___		Fail___	
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)					
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score			
		Pass___		Fail___	
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)					
Candidate Print Name & Signature:		Candidate: Print Name or Candidate #			

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Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



Radiation Detection Equipment Maintenance & Operation; Detecting Container Breach

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*, 7.1.2.2(3)(d); 7.1.2.2(5)(a); 7.4.5(3) 2013 Edition

AFC & PSC

Hazardous Materials Technician

HMT Skill Sheet - 12

The candidate, given a radiation meter and detector and a labeled package to simulate a Type A radioactive package, will demonstrate the proper general procedures for performing field maintenance and measurement of radiation. Once the meter/detector has been verified to function properly, and the student has documented the field maintenance on a "radiation detection equipment maintenance and measurement record sheet" (to be provided by instructor/evaluator), the candidate will survey a "damaged" radioactive package to determine if it has been breached. If any removable contamination readings greater than 2 x background or exposure values exceeding the Transport Index listed on the package label are recorded, the candidate will document the findings and determine the container to be breached. If the container does not indicate surface contamination nor a Transport Index greater than what is shown on the label, the candidate will document that no breach or contamination detected.

See maintenance and measurement sheet for specific details.

A Radiation Detection Equipment Maintenance & Measurement Record will be supplied in the Test Package to the Proctor/Evaluator

Expected time to complete skill(s) is 60 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Safely performs the following steps:				
1. Inspects meter and detector				
2. Records model number(s)				
3. Records serial number(s)				
4. Verifies calibration date				
5. Installs batteries or visually checks batteries				
6. Properly determines type(s) of radiation meter/detector can measure				
7. Establishes background reading				
8. Surveys package to determine leak or breach				
Candidate must successfully perform 6/8 steps including ALL CRITICAL POINTS	Score: __/8		Score: __/8	

Evaluator Notes

Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score	
		Pass___	Fail___
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)			
Candidate Print Name & Signature:	Candidate: Print Name or Candidate #		

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Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at **ANY** time that you have a safety concern.



Termination Documentation (PIA Form) & Assist in a Critique

Reference source: NFPA 472, *Standard for Professional Competence of Responders to Hazardous materials Incidents*, 7.1.2.2(5)(b)(c), 2013 Edition

AFC & PSC

Hazardous Materials Technician

HMT Skill Sheet – 13

A four-person team, after watching a video of a hazardous materials incident, will critique the incident response shown in the video. Criteria for the team to critique may include strategy, tactics, PPE, general safety issues, site management, command, etc.

Equipment needed: computer, video projector, or television/video player
A Post-Incident Analysis Form and video will be supplied in the Test Package to the Proctor/Evaluator

Expected time to complete skill(s) is 30 minutes

Performance Steps	Test		Retest	
	P	F	P	F
Performs the following:				
1. Reviews video and completes Post-Incident Analysis form to assist in formalized critique				
2. Identifies specific issues that are <u>major</u> discussion points that the team would address in a formalized critique.				
a. Command and Control				
b. Tactical Operations				
c. Resources Required				
d. Support Services Required				
e. Plans and Procedures Inadequacies				
f. Training Inadequacies				
Candidate must successfully perform ALL steps including all CRITICAL POINTS	Score: __/2		Score: __/2	
Evaluator Notes				
Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score		
		Pass___	Fail___	
By my signature above, I verify that I am currently certified to the level I am testing (AL/PB/IFSAC)				
Re-Test Evaluator Print Name & Signature:		Overall Skill Sheet Re-Test Score		
		Pass___	Fail___	
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Candidate Print Name & Signature:	Candidate: Print Name or Candidate #			
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Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern.				