HAZARDOUS MATERIALS TECHNICIAN

PRACTICAL SKILLS CERTIFICATION EVALUATION PACKET

(NFPA Standard 472, 2013 Edition)

Department of Public Safety
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V13-2

HAZARDOUS MATERIALS TECHNICIAN PRACTICAL SKILLS JOB PERFORMANCE REQUIREMENTS **(NFPA 472, 2013 Edition)**			
2013 Skill Sheet #	**NFPA 472 Section**	**Tasks**	**Initial Certification Skill Requirement: Mandatory: 5 Random: 4**
HMT 1	7.1.2.2(3)	Implement the Planned Response	Mandatory
HMT 2	7.2.1.3.5	Identify the Hazards	Type 1 Random
HMT 3	7.2.1.3.6	Field Maintenance/Testing Procedures	Type 1 Random
HMT 4	7.2.1.5 (1)(2)(3), 7.3.5.5	Collecting Gas, Liquid, and Solid Samples	Type 1 Random
HMT 5	7.2.1.5 (1)(2)(3), 7.3.5.5	Use PPE/Sampling Equipment	Type 1 Random
HMT 6	7.2.2.4, 7.3.3	Identify Exposures and Effects	Mandatory
HMT 7	7.2.3.5	Survey Radiological Container Integrity	Type 1 Random
HMT 8	7.2.5.1	Identify Dispersion/ Concentration Information	Type 1 Random
HMT 9	7.3.3.4.5, 7.3.3.4.6	Identify and Select PPE	Mandatory
HMT 10	7.1.2.2(3)(b), 7.3.5.2, 7.3.5.2.1, 7.3.5.2.2	Develop Site Safety and Control Plan	Mandatory
HMT 11	7.1.2.2(3)(b), 7.3.3.4.8, 7.4.2(3)(4)	Using Protective Clothing, Level A	Type 2 Random
HMT 12	7.1.2.2(3)(b), 7.3.3.4.8, 7.4.2(3)(4)	Using Protective Clothing, Level B	Type 2 Random
HMT 13	7.1.2.2(3)(b), 7.3.3.4.8, 7.4.2(3)(4)	Using Protective Clothing, Level C	Type 2 Random
HMT 14	7.4.3(1)	Perform Control Functions: Contain using Chlorine Kit A	Type 3 Random
HMT 15	7.4.3	Perform Control Functions: Contain using Chlorine Kit B	Type 3 Random
HMT 16	7.4.3 (3 (4)	Perform Control Functions: Contain 55-Gallon Drum	Type 3 Random
HMT 17	7.4.3 (8)	Perform Control Functions: Contain M306 Cargo Tank	Type 3 Random
HMT 18	7.1.2.2(3)(d), 7.4.5	Establish Decontamination Operations	Type 4 Random
HMT 19	7.4.5 (1)(2)	Technical Decontamination Operations	Type 4 Random
HMT 20	7.4.5 (3)	Mass Decontamination Operations	Type 4 Random
HMT 21	7.6.3 (2), 7.1.2.2(5)	Reporting and Documenting the Incident	Mandatory - Project Based Review

Skill Sheet Packet Instruction

Purpose of the Skill Sheets

All skills listed in this packet are consistent with NFPA 472: *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2013 edition. The Alaska Fire Standards Council (AFSC) provides these skill sheets as the basis for Hazardous Materials Technician testing and certification.

Description & Use

For certification purposes, the final skill examination will consist of a series of mandatory skill stations and a selection of random skills from this packet. Hazardous Materials Awareness Practical Skills Sheets and Hazardous Materials – Operations Skill Sheets are requisite skills for Hazardous Materials Technician certification. Candidates not already certified at the awareness and operations level are required to successfully complete the Awareness *and* Operations job performance requirements during final certification examinations at the Technician level.

1. These skills sheets are designed for use by the Training Officer/Training Program Manager and Hazardous Materials Technician candidate. Use of this packet throughout an accredited training program will assist in verifying candidate competency and completion of the Hazardous Materials Technician Training Record.
2. For eligibility to complete the final certification examination, a candidate must meet requisite certification requirements and demonstrate competency in all skills during training and satisfactorily compete all items on the Hazardous Materials Technician Training Record document.
3. This packet is designed to encompass the requisite skills for Hazardous Materials Technician and many of these skill sheets are used for final testing and certification. Training Officers/Training Program Managers and Hazardous Materials Technician course instructors should utilize this evaluation packet during a course to prepare candidates for the certification exam. These skills sheets should be given to every Hazardous Materials Technician candidate at the beginning of a training course and used throughout the course for ongoing evaluation by the instructor. For a candidate's final skills evaluation, she or he must successfully perform each skill while being evaluated on performance competency by an AFSC examination representative.
4. The final skills examination will consist of skills selected from this packet. Skills are selected from the mandatory and random skills categories. This packet contains a list of all mandatory and randomly selected skills that are used for the final examination.
5. Random skill stations will be selected using a test management system within the AFSC office. The random skill stations are selected just prior to the test date. The Certifying Officer will notify candidates which skills they will be required to complete at the start of the practical skills portion on the date of the examination.
6. The completion of the Hazardous Materials Technician Training Record establishes a candidate's eligibility to test. This document must be fully completed and signed by the Training Officer/Training Program Manager or designee for each candidate before a candidate can begin the final skills examination. The Hazardous Materials Technician Training Record and the practical skills evaluation sheets shall become a permanent part of the candidate's local training record, and this information shall be kept on file in accordance with local fire department procedures.

Grading Criteria

1. It is expected that all of the listed skill sheet elements will be taught and evaluated by the Hazardous Materials Technician instructor throughout a course. During the final skills exam the candidate must be prepared to perform all the skills listed in this packet. There are no specific critical points designated within the practical skill sheets, and the Certifying Officer (CO) will require the candidate to repeat an individual practical skill station if *all* of the listed skill items on a selected sheet are not completed by the candidate.
2. This packet contains skill requirements that involve the demonstration of hazardous materials skills within "simulated" scenarios related to fire ground activities. When applicable, skill sheets specifically describe when simulated fire conditions are permitted for certification testing.
3. There are critical performance items that must be followed for satisfactory performance. Examples of *unsatisfactory* performance can include:
    a. Exceeding limitations: time, safety, and equipment limitations
    b. Inadequate/insufficient personal protective equipment
    c. Lack of skill accuracy and task completion as defined on the skill evaluation sheet
    d. Poor judgment in skill performance (i.e.- wrong application of tool or equipment or safety violation)
    e. Failure to appropriately apply related knowledge or skill requirements
    f. Not competent in the specified task or skill steps
    g. Outcome of the specified task is in doubt (i.e.- incorrectly performed or did not accomplish skill evaluation criteria)
    h. Need for Evaluator intervention (i.e.- imminent health or safety risk to candidate or others)
    i. Failure to adhere to basic safety principles or guidelines

Artificialities of Training and Testing

Training and testing for Hazardous Materials Technician can only approximate on-the-job activities of a firefighter. There are certain artificialities to training and testing that the candidate must be able to adapt to. Candidates must be aware that actual fire ground situations cannot be completely duplicated during final examination scenarios. For the best possible outcome during final skills examination, Hazardous Materials Technician instructors must prepare the candidates to competently perform the skills listed in this packet throughout a training course.

Final Skills Evaluation

The AFSC designated Certifying Officer (CO) conducts the final evaluation and utilizes the practical skills evaluation sheets during the final examination process. Throughout the final examination, the CO has the overall test site authority and is required to perform his or her duties as outlined in the Certification Policy Manual.

For preparation of the final examination the designated CO must coordinate with the Training Officer/Training Program Manager, or designee, to ensure an adequate test site location is available. The Training Officer/Training Program Manager is responsible for preparation of all test site equipment/materials and arranging designated evaluators for the date of the practical examination. The CO must verify that all required elements are adequate for testing and will approve all designated Evaluators. Designated Evaluators shall receive training appropriate for the test site and are required to complete an Evaluator Code of Ethics Compliance agreement before testing begins.

Additional Notes:

The CO shall verify completion of the final examination packet, and the packet will be attached to the Hazardous Materials Technician Training Record as part of the candidate's permanent local training record.

1. During the final practical examination it is expected that an appropriate uniform, or full personal protective equipment (PPE), shall be worn unless otherwise indicated within the skill evaluation sheet.
2. During some scenarios a candidate may be instructed to perform other firefighter/hazardous materials tasks not directly related to the specific skill sheet evaluation being tested. It is expected that the candidate shall perform all related skills correctly.
3. Some skills may include a time limit. An Evaluator may use a digital or analog watch/stopwatch for final skills evaluation. Prior to the start of the practical examination, the CO must inspect and approve all timing devices used during final skills evaluations.
4. Some skills require that equipment or documentation be used within the final skills examination. Unless otherwise indicated, it is permissible for the candidate to prepare or assemble the required equipment or paperwork at any time, provided that this does not interfere with the core skill, task, or evolution.
5. Candidates must be prepared to complete skills under a variety of conditions. Training and skills practice is often done during optimum conditions, but candidates must be prepared to adapt to changing conditions that can occur in actual fire ground situations. The Evaluator ultimately determines if the candidate has met the criteria specified on the skill(s) being evaluated.
6. For final examination, the performance of a skill, task, or evolution is not required to be done in the exact order of the steps (as outlined on the skill sheet), unless it is critical to a particular task. For example, a person must don turnout gear before donning an SCBA.
7. Some scenarios may involve skills that must be performed as a team. During final skills examinations Evaluators and candidates must be cognizant that each team member is evaluated separately to ensure individual criteria is met. An individual candidate may be required to repeat a task if they do not satisfy the skill sheet requirements if working as a member of a team.
8. Some skills may require that a candidate verbalizes information about a particular task or procedure. In such cases, any question(s) from the Evaluator to the candidate must be limited to those that satisfy the criteria listed on the skill sheet, and a question cannot exceed the scope the Hazardous Materials Technician requirements.

Hazardous Materials Technician Final Written and Practical Examinations

Following is a brief outline of the reference materials and documents that are used for a Hazardous Materials Technician final examination:

Hazardous Materials Technician Written Material References

a. NFPA 472: *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2013 edition.
b. Text
   - Jones and Bartlett, *Hazardous Materials: Managing the Incident*, 4th Edition
c. Additional Reference
   - DOT Emergency Response Guide Book, 2012 Edition

Hazardous Materials Technician Practical Skills Evaluation References

a. NFPA 472: *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2013 edition.
b. Hazardous Materials Technician Practical Skills Evaluation Sheets (*this packet*)

Final Examination Steps

a. *Hazardous Materials Technician Training Record review (*this must be completed and signed off by the **Accreditation Manager/Training Officer or designee** prior to the date of the final examination and reviewed by the CO to ensure all elements are complete.*
b. Certifying Officer reviews and signs candidate Application for Certification
c. Candidate completes the written examination administered by the CO
d. Candidate completes the practical examination administered by the CO.
e. Certifying Officer reviews completed Evaluator skill sheets and transfers information to the Practical Examination Reporting Form (PERF)
f. Written exam, PERF, and signed application are forwarded to AFSC.
g. AFSC Hazardous Materials Technician certificate is issued upon successful completion of the written and practical exam (*within approximately 30 days of test date*)

*Note: *The candidate's completed Training Record and signed Final Examination skill sheets shall be placed in the candidate's local training file in accordance with fire department procedures*

Acknowledgements

The Alaska Fire Standards Council would like to acknowledge the assistance of the International Fire Service Accreditation Congress and its members who have provided reference and support throughout the revision process.

NFPA 472-2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-1

Candidate:	**Date:**

STANDARD: NFPA 472: 7.1.2.2(3[a,c]), 7.5.1	**GENERAL SKILL:** **Implement the Planned Response**

TASK: The candidate shall implement and evaluate the planned response to favorably change the outcomes consistent with the organization's standard operating procedures and site safety and control plan.

PERFORMANCE OUTCOME: The candidate shall correctly perform control functions as assigned through the Incident Management System and evaluate effectiveness of those functions for the incident given.

EQUIPMENT: AHJ Site Safety & Control Plan, Incident Action Plan, and associated equipment for the scenario given.

CONDITIONS: Given standard operating procedures or Incident Action Plan and a site safety and control plan of the AHJ the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Perform the duties of an assigned Hazardous Materials Branch or Group position within the local incident management system (ICS) as identified using the National Incident Management System (NIMS)						
1.	Utilizes the Incident Action Plan or Standard Operating Procedure	☐	☐	☐	☐	☐	☐
2.	• Follows the Site safety and control plan	☐	☐	☐	☐	☐	☐
3.	Perform the control functions identified in the incident action plan	☐	☐	☐	☐	☐	☐
4.	Evaluate the effectiveness of the control functions identified in the Incident Action Plan.	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

_____ _____
Certifying Officer Name *Date*

_____
Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-2

Candidate:	**Date:**

STANDARD: NFPA 472: 7.2.1.3.5	**GENERAL SKILL:** **Identify the Hazards**

TASK: Identify or classify chemicals using monitoring equipment.

PERFORMANCE OUTCOME: Working as a member of a team, the candidate shall Identify or classify chemicals using monitoring equipment and correctly classify an unknown substance using monitoring equipment and detection / test papers.

EQUIPMENT: Carbon Monoxide meter, Colorimetric tubes, Combustible gas indicator, Oxygen meter, passive dosimeters, pH indicators and pH meters, Photoionization detectors, Radiation detection instruments, Reagents, Test strips (F paper, pH paper, KI paper, M8 and M9), and WMD detectors (chemical & biological), or other equipment provided by the AHJ.

CONDITIONS: Given a simulated hazardous materials response, PPE, monitoring instruments, and test papers, the candidate shall demonstrate knowledge and the ability to:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Record background radiation readings before entering the hot zone.	☐	☐	☐	☐	☐	☐
2.	Using a test strips, check the atmosphere for corrosive vapors by wetting pH paper and F paper with water before entering the hazard zone.	☐	☐	☐	☐	☐	☐
	Test the atmosphere and record the following data:						
3.	a) Oxygen	☐	☐	☐	☐	☐	☐
4.	b) LEL	☐	☐	☐	☐	☐	☐
5.	c) Radioactivity	☐	☐	☐	☐	☐	☐
6.	d) CO, H2S, VOCs, and any positive warfare agent reading.	☐	☐	☐	☐	☐	☐
7.	e) Any other positive reading (M256, colorimetric tubes, etc.).	☐	☐	☐	☐	☐	☐
	Test any liquid or liquid vapors and record the following data:						
8.	a) Test strip readings (F paper, pH paper, KI paper, M8 and M9).	☐	☐	☐	☐	☐	☐
9.	b) Oxygen	☐	☐	☐	☐	☐	☐
10.	c) LEL	☐	☐	☐	☐	☐	☐
11.	d) CO, H2S, VOCs, and any positive warfare agent reading.	☐	☐	☐	☐	☐	☐
12.	e) Any other positive reading (M256, colorimetric tubes, etc.).	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

Certifying Officer Name _____ *Date*

Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-3

Candidate:	**Date:**

STANDARD: NFPA 472: 7.2.1.3.6	**GENERAL SKILL:**	**Field Maintenance/Testing Procedures**

TASK: The candidate shall demonstrate the field maintenance and testing procedures for the monitoring equipment, test strips, and reagents provided by the authority having jurisdiction.

PERFORMANCE OUTCOME: The candidate shall demonstrate proper field maintenance and/or testing procedures.

EQUIPMENT: Air monitor, Reagents (colorimetric tubes), Test strips (F paper, pH paper, KI paper, M8, M9, etc) as provided by AHJ

CONDITIONS: Given monitoring equipment and manufacture's operating instructions for equipment provided by the AJH the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Demonstrate proper field calibration and inspection procedures.						
1.	a) Monitoring equipment	☐	☐	☐	☐	☐	☐
2.	b) Test strips	☐	☐	☐	☐	☐	☐
3.	c) Reagents	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

_____ _____

Certifying Officer Name *Date*

_____

Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-4

Candidate:	**Date:**

STANDARD: NFPA 472: 7.2.1.3.5; 7.3.5.5	**GENERAL SKILL:** **Collecting Gas, Liquid, and Solid Samples**

TASK: 7.2.1.3.5- Given three hazardous materials/WMD, one of which is a solid, one a liquid, and one a gas, the hazardous materials technician shall select from the following equipment and demonstrate the correct techniques to identify the hazards (corrosivity, flammability, oxidation potential, oxygen deficiency, radioactivity, toxicity, and pathogenicity). **7.3.5.5-** The hazardous materials technician shall identify the procedures, equipment, and safety precautions for preserving and collecting legal evidence at hazardous materials /WMD incidents.

PERFORMANCE OUTCOME: The candidate shall correctly classify and/or quantify the materials given.

EQUIPMENT: Adequate PPE, sampling equipment, carbon monoxide meter, colorimetric tubes, combustible gas indicator, oxygen meter, passive dosimeters, pH indicators and/or pH meters, photo ionization and flame ionization detectors, radiation detection instrument, reagents, test strips, WMD detectors (chemical and biological) and other equipment provided by the AHJ.

CONDITIONS: Given three materials (one solid, one liquid, and one gas) and appropriate monitoring equipment, test strips and reagents the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Don appropriate PPE.	☐	☐	☐	☐	☐	☐
2.	Collect a sample of each of the following using the aseptic sampling method:	☐	☐	☐	☐	☐	☐
	Gas sample						
3.	a) Select appropriate equipment	☐	☐	☐	☐	☐	☐
4.	b) Use proper technique	☐	☐	☐	☐	☐	☐
5.	c) Classify or identify by hazard	☐	☐	☐	☐	☐	☐
6.	d) Quantify (concentration in air)	☐	☐	☐	☐	☐	☐
	Liquid sample						
7.	a) Select appropriate equipment	☐	☐	☐	☐	☐	☐
8.	b) Use proper technique	☐	☐	☐	☐	☐	☐
9.	c) Classify or identify by hazard	☐	☐	☐	☐	☐	☐
10.	d) Quantify (pH)	☐	☐	☐	☐	☐	☐
	Solid sample						
11.	a) Select appropriate equipment	☐	☐	☐	☐	☐	☐
12.	b) Use proper technique	☐	☐	☐	☐	☐	☐
13.	c) Classify or identify by hazard	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

_____ _____
Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-5

Candidate:	**Date:**

STANDARD: NFPA 472: 7.2.1.5; 7.3.5.5	**GENERAL SKILL:** **Use PPE/Sampling Equipment**

TASK: 7.2.1.3.5- Given three hazardous materials/WMD, one of which is a solid, one a liquid, and one a gas, the hazardous materials technician shall select from the following equipment and demonstrate the correct techniques to identify the hazards (corrosivity, flammability, oxidation potential, oxygen deficiency, radioactivity, toxicity, and pathogenicity). **7.3.5.5-** The hazardous materials technician shall identify the procedures, equipment, and safety precautions for preserving and collecting legal evidence at hazardous materials /WMD incidents.

PERFORMANCE OUTCOME: The candidate shall properly handle, secure, and mark samples given.

EQUIPMENT: Adequate PPE, sampling equipment, carbon monoxide meter, colorimetric tubes, combustible gas indicator, oxygen meter, passive dosimeters, pH indicators and/or pH meters, photo ionization and flame ionization detectors, radiation detection instrument, reagents, test strips, WMD detectors (chemical and biological) and other equipment provided by the AHJ.

CONDITIONS: Given appropriate PPE and manufacturer's operating instructions for sampling equipment provided by the authority having jurisdiction the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Don appropriate PPE.	☐	☐	☐	☐	☐	☐
2.	Collect a sample of each of the following using the aseptic sampling method:	☐	☐	☐	☐	☐	☐
	Collection of Samples – Material 1 (Solid)						
3.	a) Proper PPE worn during collection process	☐	☐	☐	☐	☐	☐
4.	b) Select and use appropriate equipment, and containers	☐	☐	☐	☐	☐	☐
5.	c) Used proper technique	☐	☐	☐	☐	☐	☐
	Collection of Samples – Material 2 (Liquid)						
6.	a) Proper PPE worn during collection process	☐	☐	☐	☐	☐	☐
7.	b) Select and use appropriate equipment, and containers	☐	☐	☐	☐	☐	☐
8.	c) Used proper technique	☐	☐	☐	☐	☐	☐
	Collection of Samples – Material 3 (Gas)						
9.	a) Proper PPE worn during collection process	☐	☐	☐	☐	☐	☐
10.	b) Select and use appropriate equipment, and containers	☐	☐	☐	☐	☐	☐
11.	c) Used proper technique	☐	☐	☐	☐	☐	☐
12.	Samples properly handled, secured, marked and documented on evidence collection form.	☐	☐	☐	☐	☐	☐
13.	Maintain chain of custody while turning over evidence	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

_____ _____
Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-6

Candidate:	**Date:**

STANDARD: NFPA 472: 7.2.2.4, 7.3.3	**GENERAL SKILL:** **Identify Exposures and Effects**

TASK: The candidate shall identify the signs and symptoms of exposure to each material and the target organ effects of exposure to that material.

PERFORMANCE OUTCOME: The candidate shall correctly identify signs and symptoms of exposure.

EQUIPMENT: Applicable ICS forms, written and electronic reference material (i.e. NIOSH Pocket Guide, CHRIS Manual, Safety Data Sheets, WISER, CAMEO)

CONDITIONS: Given five hazardous material scenarios and appropriate reference materials the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Scenario 1:						
1.	a) Identify signs and symptoms of exposure	☐	☐	☐	☐	☐	☐
2.	b) Identify target organ effects	☐	☐	☐	☐	☐	☐
3.	c) Proper PPE (Level and Material)	☐	☐	☐	☐	☐	☐
	Scenario 2:						
4.	a) Identify signs and symptoms of exposure	☐	☐	☐	☐	☐	☐
5.	b) Identify target organ effects	☐	☐	☐	☐	☐	☐
6.	c) Proper PPE (Level and Material)	☐	☐	☐	☐	☐	☐
	Scenario 3:						
7.	a) Identify signs and symptoms of exposure	☐	☐	☐	☐	☐	☐
8.	b) Identify target organ effects	☐	☐	☐	☐	☐	☐
9.	c) Proper PPE (Level and Material)	☐	☐	☐	☐	☐	☐
	Scenario 4:						
10.	a) Identify signs and symptoms of exposure	☐	☐	☐	☐	☐	☐
11.	b) Identify target organ effects	☐	☐	☐	☐	☐	☐
12	c) Proper PPE (Level and Material)	☐	☐	☐	☐	☐	☐
	Scenario 5:						
13.	a) Identify signs and symptoms of exposure	☐	☐	☐	☐	☐	☐
14.	b) Identify target organ effects	☐	☐	☐	☐	☐	☐
15.	c) Proper PPE (Level and Material)	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

_____ _____
Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-7

Candidate:	**Date:**

STANDARD: NFPA 472: 7.2.3.5	**GENERAL SKILL:** **Survey Radiological Container Integrity**
TASK: The hazardous materials technician candidate shall determine if the integrity of any container has been breached.	
PERFORMANCE OUTCOME: Working as a member of a team, the candidate shall survey a radiological incident with the proper survey equipment.	
EQUIPMENT: PPE, radiological survey meter, radiological dosimetry device, radiation test source, radioactive package/container, survey equipment	
CONDITIONS: Given a scenario involving radioactive materials the candidate shall:	

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Prepare the survey meter for use.	☐	☐	☐	☐	☐	☐
2.	Record background readings from the survey meter.	☐	☐	☐	☐	☐	☐
3.	Prepare and uses personal dosimetry device.	☐	☐	☐	☐	☐	☐
	Surveys package:						
4.	a) Record any readings on the instrument.	☐	☐	☐	☐	☐	☐
5.	b) Use proper techniques when using the survey meter so that the meter does not become contaminated.	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	
Comments:			

_____ _____
Certifying Officer Name *Date*

_____
Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-8

Candidate:	**Date:**

STANDARD: NFPA 472: 7.2.5.1	**GENERAL SKILL:** **Identify Dispersion/ Concentration Information**

TASK: The candidate shall identify available local resources designed to provide plume dispersion / concentration information

PERFORMANCE OUTCOME: The candidate shall correctly identify dispersion/concentration information available from various sources of assistance.

EQUIPMENT: AHJ's Emergency Response Plan, access to electronic plume modeling software, computers, and monitoring equipment

CONDITIONS: Given a scenario the candidate shall identify the following:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Candidate identifies and uses:						
1.	a) Written resources available with information	☐	☐	☐	☐	☐	☐
2.	b) Computer based resources available information	☐	☐	☐	☐	☐	☐
3.	c) Personnel resources available information	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	
Comments:			

_____ _____
Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-9

Candidate:	**Date:**

STANDARD: NFPA 472: 7.3.3.4.5, 7.3.3.4.6	**GENERAL SKILL:** **Identify and Select PPE**

TASK: 7.3.3.4.5- The hazardous materials technician candidate shall identify the process for selecting protective clothing at hazardous materials/WMD incidents and; **7.3.3.4.6**- select the appropriate personal protective equipment to be utilized for a given scenario using chemical compatibility charts

PERFORMANCE OUTCOME: The candidate shall determine compatibility and break through time of materials given.

EQUIPMENT: Written or electronic chemical compatibility reference data

CONDITIONS: Given three names of hazardous materials and chemical compatibility charts the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Material 1:						
1.	a) Compatible Yes ☐ No ☐	☐	☐	☐	☐	☐	☐
2.	b) Breakthrough Time:	☐	☐	☐	☐	☐	☐
	Material 2:						
3.	a) Compatible Yes ☐ No ☐	☐	☐	☐	☐	☐	☐
4.	b) Breakthrough Time:	☐	☐	☐	☐	☐	☐
	Material 3:						
5.	a) Compatible Yes ☐ No ☐	☐	☐	☐	☐	☐	☐
6.	b) Breakthrough Time:	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-10

Candidate:	**Date:**

STANDARD: NFPA 472: 7.1.2.2(3)(b), 7.3.5.2, 7.3.5.2.1, 7.3.5.2.2	**GENERAL SKILL:** **Develop Site Safety and Control Plan**

TASK: The hazardous materials technician candidate shall; **7.1.2.2(3)-** describe the potential response options available by response objective; and **7.3.5.2**- develop the site safety and control plan that must be included as part of the incident action plan; and **7.3.5.2.1-** list and describe the safety considerations to be included; and **7.3.5.2.2**- identify the points that should be made in a safety briefing prior to working at the scene..

PERFORMANCE OUTCOME: Working as a member of a team, the candidate shall develop a site safety and control plan using the appropriate ICS or AHJ form and then conduct a pre-entry briefing.

EQUIPMENT: Applicable ICS forms, written and electronic technical reference material (i.e. NIOSH Pocket Guide, CHRIS Manual, Safety Data Sheets, WISER, CAMEO), PPE, and other technical references.

CONDITIONS: Given a scenario involving a hazardous materials/ WMD incident, the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Coordinate with the research team to determine the chemical characteristics, PPE compatibility, and type of decontamination needed for the hazard.	☐	☐	☐	☐	☐	☐
2.	Fill out the Site Safety and Control Plan using the data provided by the research team and by using technical references.	☐	☐	☐	☐	☐	☐
3.	After filling out the Site Safety and Control Plan, coordinate with the IC and Haz Mat supervisor to discuss the plan.	☐	☐	☐	☐	☐	☐
4.	Using the Site Safety and Control Plan as a guide, conduct a safety briefing with the entry team prior to entry.	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	
Comments:			

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-11

Candidate:	**Date:**

STANDARD: NFPA 472: 7.1.2.2(3)(b), 7.3.3.4.8, 7.4.2 (3) (4)	**GENERAL SKILL:** **Using Protective Clothing, Level A**

TASK: The hazardous materials technician candidate shall: **7.1.2.2(3)**- describe the potential response options available by response objective; and **7.4.2(3)(4)**- demonstrate donning, working in, and doffing chemical- protective clothing in addition to any other specialized protective equipment provided by the authority having jurisdiction. The candidate will also demonstrate: **7.3.3.4.8**- the ability to record the use, repair and testing of chemical-protective clothing according to the manufacturer's specifications and recommendations.

PERFORMANCE OUTCOME: The candidate demonstrates the ability to don, work in, and doff ***EPA Level A vapor protective clothing.***

EQUIPMENT: SCBA or SAR and Level A vapor-protective ensemble

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Inspect Vapor-Protective Clothing and SCBA or SAR						
1.	Inspect SCBA or SAR	☐	☐	☐	☐	☐	☐
	Inspect Suit for:						
2.	Tears	☐	☐	☐	☐	☐	☐
3.	Holes	☐	☐	☐	☐	☐	☐
4.	Discoloration	☐	☐	☐	☐	☐	☐
5.	Seams/stitches	☐	☐	☐	☐	☐	☐
6.	Boot and glove attachments	☐	☐	☐	☐	☐	☐
7.	Suit integrity	☐	☐	☐	☐	☐	☐
8.	Other items as identified by the manufacturer	☐	☐	☐	☐	☐	☐
	Don Vapor-Protective Clothing and SCBA or SAR						
9.	Utilizes helmet	☐	☐	☐	☐	☐	☐
10.	Don chemical boots	☐	☐	☐	☐	☐	☐
11.	Don SCBA (assistance authorized) and breath air	☐	☐	☐	☐	☐	☐
12.	Put on inner gloves	☐	☐	☐	☐	☐	☐
13.	Ensure zippers/closures are securely fastened	☐	☐	☐	☐	☐	☐
14.	Work in Vapor-Protective Clothing and SCBA or SAR provided by the AHJ	☐	☐	☐	☐	☐	☐
15.	Doff Vapor-Protective Clothing and SCBA or SAR according to the AHJ	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-12

Candidate:	**Date:**

STANDARD: NFPA 472: 7.1.2.2(3)(b), 7.4.2 (3)(4)	**GENERAL SKILL:** **Using Protective Clothing, Level B**

TASK: The candidate shall: **7.1.2.2(3)**- describe the potential response options available by response objective; and **7.4.2(3)(4)**- demonstrate donning, working in, and doffing chemical- protective clothing in addition to any other specialized protective equipment provided by the authority having jurisdiction. The candidate will also demonstrate: **7.3.3.4.8**- the ability to record the use, repair and testing of chemical-protective clothing according to the manufacturer's specifications and recommendations.

PERFORMANCE OUTCOME: The candidate demonstrate the ability to don, work in, and doff ***EPA Level B splash protective clothing***

EQUIPMENT: SCBA or SAR, Level B splash-protective ensemble

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Inspect Splash-Protective Clothing and SCBA or SAR						
1.	Inspect SCBA or SAR	☐	☐	☐	☐	☐	☐
	Inspect Suit for:						
2.	Tears	☐	☐	☐	☐	☐	☐
3.	Holes	☐	☐	☐	☐	☐	☐
4.	Discoloration	☐	☐	☐	☐	☐	☐
5.	Seams/stitches	☐	☐	☐	☐	☐	☐
6.	Boot and glove attachments (if present)	☐	☐	☐	☐	☐	☐
7.	Suit integrity	☐	☐	☐	☐	☐	☐
8.	Other items as identified by the manufacturer	☐	☐	☐	☐	☐	☐
	Don Splash-Protective Clothing and SCBA or SAR						
9.	Utilizes helmet	☐	☐	☐	☐	☐	☐
10.	Don chemical boots	☐	☐	☐	☐	☐	☐
11.	Don SCBA or SAR (assistance authorized) and breath air	☐	☐	☐	☐	☐	☐
12.	Put on inner gloves	☐	☐	☐	☐	☐	☐
13.	Ensure zippers/closures are securely fastened	☐	☐	☐	☐	☐	☐
14.	Ensure that splash protection (tape) is properly applied and that there is consideration given to the type of tape utilized	☐	☐	☐	☐	☐	☐
15.	Work in Splash-Protective Clothing and SCBA or SAR provided by the AHJ	☐	☐	☐	☐	☐	☐
16.	Doff Splash-Protective Clothing and SCBA or SAR according to the AHJ	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

Certifying Officer Name _____ *Date*

Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-13a

Candidate:	**Date:**

STANDARD: NFPA 472: 7.1.2.2(3),7.3.3.4.8, 7.4.2 (3)(4)	**GENERAL SKILL:** **Using Protective Clothing, Level C**

TASK: The candidate shall: **7.1.2.2(3)-** describe the potential response options available by response objective; and **7.4.2(3)(4)**- demonstrate donning, working in, and doffing chemical- protective clothing in addition to any other specialized protective equipment provided by the authority having jurisdiction. The candidate will also demonstrate: **7.3.3.4.8**- the ability to record the use, repair and testing of chemical-protective clothing according to the manufacturer's specifications and recommendations.

PERFORMANCE OUTCOME: The candidate demonstrate the ability to don, work in, and doff ***EPA Level C splash protective clothing***

EQUIPMENT: APR/PAPR, Level C splash-protective clothing

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	The Candidate will verbalize at least 1 of the five requirements for using APR/PARA (The Certifying Officer shall check the following identified requirements) ☐ Type of substance ☐ Concentration is continuously measured ☐ Concentration is below IDLH ☐ Oxygen content is at least 19.5% ☐ Filter canister used is designed for contaminant						
	Inspect Splash-Protective Clothing and APR/PAPR for:						
1.	Tears	☐	☐	☐	☐	☐	☐
2.	Holes	☐	☐	☐	☐	☐	☐
3.	Discoloration	☐	☐	☐	☐	☐	☐
4.	Seams/stitches	☐	☐	☐	☐	☐	☐
5.	Boot and glove attachments	☐	☐	☐	☐	☐	☐
6.	Suit integrity	☐	☐	☐	☐	☐	☐
7.	Other items as identified by the manufacturer	☐	☐	☐	☐	☐	☐
	Don Chemical-Protective Clothing						
8.	Utilizes helmet	☐	☐	☐	☐	☐	☐
9.	Don chemical boots	☐	☐	☐	☐	☐	☐
10.	Don APR/PAPR	☐	☐	☐	☐	☐	☐
11.	Put on inner gloves	☐	☐	☐	☐	☐	☐
12.	Ensure zippers/closures are securely fastened	☐	☐	☐	☐	☐	☐
13.	Ensure that splash protection (tape) is properly applied and that there is consideration given to the type of tape utilized	☐	☐	☐	☐	☐	☐
14.	Work in Chemical-Protective Clothing and APR/PAPR provided by the AHJ	☐	☐	☐	☐	☐	☐
15.	Doff CHemical-Protective Clothing and APR/PAPR according to the AHJ	☐	☐	☐	☐	☐	☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** **HMT-13b**

Candidate:			**Date:**
Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	
Comments:			

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-14

Candidate:	**Date:**

STANDARD: NFPA 472: 7.4.3 (1)	**GENERAL SKILL:** **Perform Control Functions: Contain using Chlorine Kit A**

TASK: The candidate shall select the appropriate material or equipment and demonstrate a method(s) to contain leaks from the following locations: (a) fusible plug; (b) fusible plug threads; (c) side wall of cylinder; (d) valve blowout; (e) valve gland; (f) valve inlet threads; (g) valve seat; and (h) valve stem assembly blowout.

PERFORMANCE OUTCOME: The candidate, working as a team of no more than 3, shall correctly select materials and equipment and locate and contain leaks. The candidate shall demonstrate the ability to perform the following: (a) close valves that are open; (b) replace missing plugs; and (c) tighten loose plugs.

EQUIPMENT: Chlorine "A" kit, Level A PPE, and a pressurized 150 lb. chlorine training cylinder

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Approach the simulator safely	☐	☐	☐	☐	☐	☐
2.	Locate all liquid and vapor leaks	☐	☐	☐	☐	☐	☐
3.	Select appropriate control devices	☐	☐	☐	☐	☐	☐
4.	Close/tighten all open valves	☐	☐	☐	☐	☐	☐
	Demonstrates the ability to control the following leaks:						
5.	(a) Fusible plug	☐	☐	☐	☐	☐	☐
6.	(b) Fusible plug threads	☐	☐	☐	☐	☐	☐
7.	(c) Side wall of cylinder	☐	☐	☐	☐	☐	☐
8.	(d) Valve blow-out	☐	☐	☐	☐	☐	☐
9.	(e) Valve gland	☐	☐	☐	☐	☐	☐
10.	(f) Valve inlet threads	☐	☐	☐	☐	☐	☐
11.	(g) Valve seat	☐	☐	☐	☐	☐	☐
12.	(h) Valve stem assembly blow-out	☐	☐	☐	☐	☐	☐
13.	Tighten loose plugs	☐	☐	☐	☐	☐	☐
14.	Replace missing plugs	☐	☐	☐	☐	☐	☐
15	Properly install the hood, if necessary	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-15

Candidate:	**Date:**

STANDARD: NFPA 472: 7.4.3	**GENERAL SKILL:**	**Perform Control Functions: Contain using Chlorine Kit B**

TASK: Given a pressure vessel, select the appropriate material or equipment and demonstrate a method(s) to contain leaks from the following locations: (a) fusible plug; (b) fusible plug threads; (c) side wall of cylinder; (d) valve blowout; (e) valve gland; (f) valve inlet threads; (g) valve seat; (h) valve stem assembly blowout; and close valves that are open.

PERFORMANCE OUTCOME: The candidate, working as a team of no more than 3, working as a member of a team (two- or three-person teams), shall demonstrate methods to contain leaks on a pressurized one-ton chlorine bulk container using a Chlorine "B" Kit.

EQUIPMENT: Chlorine "B" Kit, Level A PPE, and pressurized one-ton chlorine training cylinder.

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Approach the simulator safely	☐	☐	☐	☐	☐	☐
2.	Locate all liquid and vapor leaks	☐	☐	☐	☐	☐	☐
3.	Select appropriate control devices	☐	☐	☐	☐	☐	☐
4.	Close/tighten all open valves	☐	☐	☐	☐	☐	☐
	Demonstrates the ability to control the following leaks:						
5.	(a) Fusible plug	☐	☐	☐	☐	☐	☐
6.	(b) Fusible plug threads	☐	☐	☐	☐	☐	☐
7.	(c) Side wall of cylinder	☐	☐	☐	☐	☐	☐
8.	(d) Valve blow-out	☐	☐	☐	☐	☐	☐
9.	(e) Valve gland	☐	☐	☐	☐	☐	☐
10.	(f) Valve inlet threads	☐	☐	☐	☐	☐	☐
11.	(g) Valve seat	☐	☐	☐	☐	☐	☐
12.	(h) Valve stem assembly blow-out	☐	☐	☐	☐	☐	☐
13.	Properly install the hood, if necessary	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-16

Candidate:	**Date:**

STANDARD: NFPA 472: 7.4.3 (3 (4)	**GENERAL SKILL:**	**Perform Control Functions: Contain 55-Gallon Drum**

TASK: The candidate shall demonstrate the ability to contain the following types of leaks using appropriate tools and materials: (a) bung leak; (b) chime leak; (c) forklift puncture; and (d) nail puncture. The candidate shall demonstrate the ability to place the 55-gallon (208L) drum into the over pack drum using the following methods: (a) rolling slide-in; (b) slide-in; and (c) slipover.

PERFORMANCE OUTCOME: Working as a member of a team, shall demonstrate the ability to contain four common types of leaks associate with 55-gallon drums and be able to perform three methods of drum over packing.

EQUIPMENT: 55-gallon drums (that simulate the above mentioned scenarios), bung wrench, plug and patch materials kit, three over pack drums, Level "A" protective clothing and SCBA.

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Contain a 55-Gallon Drum Bung Leak						
1.	a) Tighten leaking bung to contain leak	☐	☐	☐	☐	☐	☐
2.	b) Contained leaking drum by other means	☐	☐	☐	☐	☐	☐
3.	c) Upright drum after controlling leak	☐	☐	☐	☐	☐	☐
	Contain a 55-Gallon Drum Chime Leak						
4.	a) Contained leak by application of putty, lead wool, or other appropriate material	☐	☐	☐	☐	☐	☐
5.	b) Turned drum over so the leaking chime is upright	☐	☐	☐	☐	☐	☐
6.	c) Rolled drum over to a position that causes leaking product to cease	☐	☐	☐	☐	☐	☐
	Contain a 55-gallon drum nail puncture leak.						
7.	a) Contained leak by inserting a plug or applying a patch	☐	☐	☐	☐	☐	☐
8.	b) Turn or upright the drum to a position where product flow ceases	☐	☐	☐	☐	☐	☐
	Contain a 55-gallon forklift puncture leak						
9.	a) Used appropriate tools and materials provided by AHJ and contained the leak	☐	☐	☐	☐	☐	☐
	Over pack leaking 55-gallon drum						
10.	a) Slide-in	☐	☐	☐	☐	☐	☐
11.	b) Rolling slide in	☐	☐	☐	☐	☐	☐
12.	c) Slip-over	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-17

Candidate:	**Date:**

STANDARD: NFPA 472: 7.4.3 (8)	**GENERAL SKILL:** **Perform Control Functions Contain M306 Cargo Tank**

TASK: The hazardous materials technician candidate shall demonstrate the ability to install a clamp on a dome of an MC-306/DOT 406 cargo tank and perform the following: (a) approach simulator in a safe manner; (b) identify precautions to be taken for fire control/ignition sources; (c) locate all leaks; (d) install dome clamp; and (e) evaluate effectiveness.

PERFORMANCE OUTCOME: The candidate working as a member of a team (two- or three-person team), shall demonstrate the ability to control liquid leaks on a MC-306/DOT-406 dome lid properly.

EQUIPMENT: Appropriate PPE and SCBA, dome clamps, and a MC-306/DOT 406 training simulator

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Identify tank capacity by using markings or other resources	☐	☐	☐	☐	☐	☐
2.	Identify precautions for fire control	☐	☐	☐	☐	☐	☐
3.	Approach the simulator safely	☐	☐	☐	☐	☐	☐
4.	Eliminate ignition sources	☐	☐	☐	☐	☐	☐
5.	Locate leaking dome	☐	☐	☐	☐	☐	☐
6.	Candidate secures dome and properly installs dome clamp	☐	☐	☐	☐	☐	☐
7.	Evaluate the effectiveness of control functions	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

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Certifying Officer Name *Date*

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Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-18

Candidate:	**Date:**

STANDARD: NFPA 472: 7.1.2.2(3)(d), 7.4.5	**GENERAL SKILL:**	**Establish Decontamination Operations**

TASK: Demonstrate setup of the decontamination corridor as specified in the planned response.

PERFORMANCE OUTCOME: As a member of a team, given a simulated hazardous material incident, establish a contamination reduction corridor according to local plans and standard operating procedures.

EQUIPMENT: Water supply, decontamination supplies and equipment, local decontamination plan, AHJ standard operating procedures, and Hazardous Materials Response Plan.

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Establish a Contamination Reduction Corridor						
1.	Obtain local plan and standard operating procedures	☐	☐	☐	☐	☐	☐
2.	Gather needed equipment to establish the Contamination Reduction Corridor (CRC)	☐	☐	☐	☐	☐	☐
3.	Provide a water source for decontamination	☐	☐	☐	☐	☐	☐
	Minimum Requirements						
4.	Measures are taken to protect environment from contamination according to the plan	☐	☐	☐	☐	☐	☐
5.	Pools or basins used to contain decontamination solution run-off	☐	☐	☐	☐	☐	☐
6.	Entry and exit points clearly marked	☐	☐	☐	☐	☐	☐
7.	Container available to contain contaminated tools, equipment, and clothing	☐	☐	☐	☐	☐	☐
8.	Precautions taken to eliminate cross and secondary contamination	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

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Certifying Officer Name *Date*

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Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-19a

Candidate:	**Date:**

STANDARD: NFPA 472: 7.4.5 (1)(2)	**GENERAL SKILL:** **Technical Decontamination Operations**

TASK: The hazardous materials technician candidate shall implement technical decontamination operations in support of entry operations and technical decontamination operations involving ambulatory and non-ambulatory victims.

PERFORMANCE OUTCOME: The candidate, working as a member of a team of no more than eight members and given local decontamination plan and decontamination equipment, shall demonstrate how to perform ***technical decontamination operations involving responders, ambulatory victims, and non-ambulatory victims*** specified in the planned response.

EQUIPMENT: Water supply, decontamination supplies and equipment, decontamination trainers or personnel to act as victims, local decontamination plan, AHJ standard operating procedures, and Hazardous Materials Response Plan.

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Demonstrate the Decontamination Process						
1.	Obtain local decontamination plan	☐	☐	☐	☐	☐	☐
2.	Perform decontamination according to local plan and requirements	☐	☐	☐	☐	☐	☐
3.	Establish and utilize three technical sources for tactical Decontamination	☐	☐	☐	☐	☐	☐
	The following decontamination steps must be accomplished in the order listed:						
4.	a) Direct responders and/or ambulatory victims to enter decontamination area and drop belongings	☐	☐	☐	☐	☐	☐
5.	b) Perform gross decontamination to remove as much contamination as possible	☐	☐	☐	☐	☐	☐
6.	c) Remove clothing (victim only)	☐	☐	☐	☐	☐	☐
7.	d) Contamination removal process	☐	☐	☐	☐	☐	☐
8.	e) PPE Doffing (responder only)						
9.	f) Clothing replacement	☐	☐	☐	☐	☐	☐
10.	g) Medical evaluation	☐	☐	☐	☐	☐	☐
11.	h) Ensure the area is properly prepared to accept contaminated non-ambulatory patients.	☐	☐	☐	☐	☐	☐
12.	i) Move non-ambulatory victims through corridor	☐	☐	☐	☐	☐	☐
13.	j) Transfer for medical evaluation	☐	☐	☐	☐	☐	☐
	Decontamination Workers						
14.	Performed decontamination on each other	☐	☐	☐	☐	☐	☐
15.	Avoided cross-contamination	☐	☐	☐	☐	☐	☐
16.	Ensured contamination tools and equipment were contained in proper storage receptacles	☐	☐	☐	☐	☐	☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** **HMT-19b**

Candidate:	**Date:**

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	
Comments:			

_____ _____
Certifying Officer Name *Date*

_____
Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-20

Candidate:	**Date:**

STANDARD: NFPA 472: 7.4.5 (3)	**GENERAL SKILL:** **Mass Decontamination Operations**

TASK: The hazardous materials technician candidate shall implement technical decontamination operations in support of mass decontamination operations involving ambulatory and non-ambulatory victims.

PERFORMANCE OUTCOME: The candidate, working as a member of a team of no more than eight members and given local decontamination plan and decontamination equipment, shall demonstrate how to perform ***mass decontamination operations involving ambulatory and non-ambulatory victims*** in the given plan.

EQUIPMENT: Water supply, decontamination supplies and equipment, decontamination trainers or personnel to act as victims, local decontamination plan, AHJ standard operating procedures, and Hazardous Materials Response Plan.

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
	Demonstrate the Decontamination Process						
1.	Obtain local decontamination plan	☐	☐	☐	☐	☐	☐
2.	Perform decontamination according to local plan and requirements	☐	☐	☐	☐	☐	☐
	The following decontamination steps must be accomplished in the order listed:						
3.	a) Direct removal of personal clothing if deemed necessary and secure personal belongings	☐	☐	☐	☐	☐	☐
4.	b) Direct ambulatory victims to enter decontamination area	☐	☐	☐	☐	☐	☐
5.	c) Direct victims through master stream set to function through low water pressure (30 – 50 psi) deluge	☐	☐	☐	☐	☐	☐
6.	d) Clothing replacement	☐	☐	☐	☐	☐	☐
7.	e) Medical evaluation	☐	☐	☐	☐	☐	☐
8.	f) Ensure the area is properly prepared to accept contaminated non-ambulatory patients	☐	☐	☐	☐	☐	☐
9.	g) Move non-ambulatory victims through master stream set to function through low water pressure (30 – 50 psi) deluge	☐	☐	☐	☐	☐	☐
10.	h) Transfer for medical evaluation	☐	☐	☐	☐	☐	☐
	Decontamination Workers						
11.	Performed decontamination on each other	☐	☐	☐	☐	☐	☐
12.	Avoided cross-contamination	☐	☐	☐	☐	☐	☐
13.	Ensured contamination tools and equipment were contained in proper storage receptacles	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

Certifying Officer Name _____ *Date*

Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

NFPA 472- 2013 Ed. **PRACTICAL SKILL REQUIREMENTS** HMT-21

Candidate:	**Date:**

STANDARD: NFPA 472: 7.6.3 (2), 7.1.2.2 (5) a - c	**GENERAL SKILL:** **Reporting and Documenting the Incident**

TASK: The hazardous materials technician candidate shall complete reporting and documentation as required by the AHJ and collect, interpret, and develop a plan of action to include safety considerations and points that should be made in a safety briefing.

PERFORMANCE OUTCOME: The candidate shall collect, interpret, develop and describe response information and site safety plan.

EQUIPMENT: Incident Action Plan, Site Safety & Control Plan, debriefing and incident critique records, PPE/Physical evaluation record, and an ICS 214 form

CONDITIONS: Given a scenario the candidate shall:

No.	TASK STEPS	TEST		RETEST 1		RETEST 2	
		P	F	P	F	P	F
1.	Develop an Incident Action Plan	☐	☐	☐	☐	☐	☐
2.	Develop a Site Safety and Control Plan	☐	☐	☐	☐	☐	☐
3.	Conduct an incident debriefing and complete applicable record	☐	☐	☐	☐	☐	☐
4.	Conduct an incident critique and complete applicable record	☐	☐	☐	☐	☐	☐
5.	Complete a PPE/Physical evaluation record	☐	☐	☐	☐	☐	☐
6.	Complete an ICS 214 form	☐	☐	☐	☐	☐	☐

Evaluator:		***Retest Evaluator 1:***	
		Retest Evaluator 2:	

Comments:

_____ _____
Certifying Officer Name *Date*

_____
Certifying Officer Signature

Overall Skill Sheet Result:

Pass (P): ☐ **Fail (F):** ☐

PRACTICAL SKILLS CORRELATION MAP

HAZARDOUS MATERIALS TECHNICIAN PRACTICAL SKILLS JOB PERFORMANCE REQUIREMENTS

(NFPA 472, 2013 Edition)

2013 Skill Sheet #	NFPA 472 Section	Tasks	Initial Certification Skill Requirement: Mandatory: 5 Random: 4
Project Based Skills Evaluated at Local Level: ***Pre-Examination Requirements***			
HMT 21	7.6.3 (2), 7.1.2.2 (5)	Reporting and Documenting the Incident	**Mandatory - Local**
Mandatory Practical Skills: ***Final Examination Requirement***			
HMT 1	7.1.2.2(3)	Implement the Planned Response	**Mandatory**
*HMT 6	7.2.2.4, 7.3.3	Identify Exposures and Effects	**Mandatory**
*HMT 9	7.3.3.4.5, 7.3.3.4.6	Identify and Select PPE	**Mandatory**
HMT 10	7.1.2.2(3)(b), *7.3.5.2, 7.3.5.2.1, 7.3.5.2.2	Develop Site Safety and Control Plan	**Mandatory**
Type 1 Random Practical Skills: ***One Selected for Final Examination Requirement***			
HMT 2	7.2.1.3.5	Identify the Hazards	Type 1 Random
HMT 3	7.2.1.3.6	Field Maintenance/Testing Procedures	Type 1 Random
HMT 4	7.2.1.5 (1)(2)(3), 7.3.5.5	Collecting Gas, Liquid, and Solid Samples	Type 1 Random
HMT 5	7.2.1.5 (1)(2)(3), 7.3.5.5	Use PPE/Sampling Equipment	Type 1 Random
HMT 7	7.2.3.5	Survey Radiological Container Integrity	Type 1 Random
HMT 8	7.2.5.1	Identify Dispersion/ Concentration Information	Type 1 Random
Type 2 Random Practical Skills: ***One Selected for Final Examination Requirement***			
HMT 11	7.1.2.2(3)(b), 7.3.3.4.8, 7.4.2(3)(4)	Using Protective Clothing, Level A	Type 2 Random
HMT 12	7.1.2.2(3)(b), 7.3.3.4.8, 7.4.2(3)(4)	Using Protective Clothing, Level B	Type 2 Random
HMT 13	7.1.2.2(3)(b), 7.3.3.4.8, 7.4.2(3)(4)	Using Protective Clothing, Level C	Type 2 Random
Type 3 Random Practical Skills: ***One Selected for Final Examination Requirement***			
HMT 14	7.4.3(1)	Perform Control Functions: Contain using Chlorine Kit A	Type 3 Random
HMT 15	7.4.3	Perform Control Functions: Contain using Chlorine Kit B	Type 3 Random
HMT 16	7.4.3 (3 (4)	Perform Control Functions: Contain 55-Gallon Drum	Type 3 Random
HMT 17	7.4.3 (8)	Perform Control Functions: Contain M306 Cargo Tank	Type 3 Random
Type 4 Random Practical Skills: ***One Selected for Final Examination Requirement***			
HMT 18	7.1.2.2(3)(d), 7.4.5	Establish Decontamination Operations	Type 4 Random
HMT 19	7.4.5 (1)(2)	Technical Decontamination Operations	Type 4 Random
HMT 20	7.4.5 (3)	Mass Decontamination Operations	Type 4 Random

***Shaded NFPA numbers indicate practical skill that address knowledge components**

HAZARDOUS MATERIALS TECHNICIAN REQUIRED EQUIPMENT LIST		
☐	**1**	Access to electronic plume modeling software, computers, and monitoring equipment
☐	**2**	Access to NFPA 472 Standard
☐	**3**	Adequate water hose and appliances to support decontamination scenarios
☐	**4**	Air monitor equipment that includes Oxygen, Lower Explosive Limit (LEL), H2S, and Carbon Monoxide (may be individual detectors)
☐	**5**	Air purifying respirator/ powered air purifying respirator (APR/PAPR)
☐	**6**	Applicable ICS forms
☐	**7**	Chlorine "A" kit
☐	**8**	Chlorine "B" Kit
☐	**9**	Cleaning supplies (PPE, hose, ladders, SCBA)
☐	**10**	Current Emergency Response Guide Book (1 per student)
☐	**11**	Decontamination supplies and equipment, to include non-ambulatory victim decon
☐	**12**	Decontamination trainers or victims
☐	**13**	Dome clamps
☐	**14**	Field Preplanning Survey Forms
☐	**15**	Level A vapor-protective ensemble for each candidate
☐	**16**	Level B splash-protective ensemble for each candidate
☐	**17**	Level C splash-protective ensemble for each candidate
☐	**18**	Map or Drawing templates for pre-inspections/surveys
☐	**19**	Materials for absorption, damming, diking, diversion, retention, dispersion and suppression
☐	**20**	Notebook/Clipboard for candidate use
☐	**21**	Passive dosimeters for demonstration of use
☐	**22**	Photoionization detectors (May be included with #4 Air monitor)
☐	**23**	Plug and patch materials kit
☐	**24**	Portable radio
☐	**25**	PPE for Decon
☐	**26**	Pressurized 150 lb. chlorine training cylinder
☐	**27**	Pressurized one-ton chlorine training cylinder
☐	**28**	Radiation detection instruments
☐	**29**	Radiation test source
☐	**30**	Radioactive package/container
☐	**31**	Radiological dosimetry device
☐	**32**	Radiological survey meter
☐	**33**	Reagents (colorimetric tubes)
☐	**34**	Rescue dummy or extra person to use as a victim
☐	**35**	Salvage tarps/covers (assortment)
☐	**36**	SCBA/SAR for use by participants
☐	**37**	Service Tags and Maintenance log book/record
☐	**38**	Solid, liquid, and gas test simulants and collection equipment
☐	**39**	Test strips (F paper, pH paper, KI paper, M8 and M9)
☐	**40**	Three 55-gallon drums (for containment scenarios)
☐	**41**	Three over pack drums
☐	**42**	Traffic/scene control devices
☐	**43**	Various hand tools that would be used for HazMat response to include bung wrench, screw drivers, and mallet.

☐	**44**	WMD detectors (chemical & biological)
☐	**45**	Written and electronic reference material (i.e. NIOSH Pocket Guide, CHRIS Manual, Safety Data Sheets, WISER, CAMEO)
☐	**46**	Written or electronic chemical compatibility reference data

HAZARDOUS MATERIALS TECHNICIAN FACILITY CHECKLIST		
☐	**1**	Adequate water supply for Decontamination and exercises
☐	**2**	AHJ Incident Action Plan or Standard Operating Procedure
☐	**3**	AHJ Site Safety & Control Plan
☐	**4**	Decontamination plan
☐	**5**	MC-306/DOT 406 training simulator
☐	**6**	Parking lot/training ground for conducting practical skills
☐	**7**	Pump apparatus with water tank/source