SKILLS MANUAL

CHAPTER SIX

HAZARDOUS MATERIALS

NFPA 472, 2013 Edition

Effective June 1, 2015

Texas Commission on Fire Protection
P.O. Box 2286 Austin, Texas 78768-2286 (512) 936-3838

Hazardous Materials Training
Equipment & Prop List

The following are minimal recommended supplies necessary for hazardous materials training at the below listed levels of certification. Variations may exist based on the needs of each AHJ and any mission-specific job tasks as assigned by an AHJ.

Hazardous Materials Awareness

Department of Transportation's *Emergency Response Guidebook* (ERG) (current ed.)
Material Safety Data Sheet (MSDS) or Safety Data Sheets (SDS) – Samples
Placards & Labels
Transportation/Shipping document – Sample
NFPA 704 sample
Safety Vests
Binoculars

Hazardous Materials Operations

All awareness equipment *plus…*
Structural Firefighter Protective Ensemble (bunker gear)

Reference Material:

- NIOSH *Pocket Guide to Chemical Hazards*
- NFPA *Hazardous Materials / Weapons of Mass Destruction Response Handbook* (current edition)
- Pesticide label example

Respiratory Protection to include:

- Air Purifying Respirator (APR-half mask)
- Air Purifying Respirator (APR-full face)
- SCBA

Chemical Protective Clothing to include:

- Vapor Protective CPC (Level A)
- Splash Protective Encapsulated CPC (Level B)
- Splash Protective Non-Encapsulated CPC (Level B, Level C)
- Chemical Boots (Rubber Boots for training only)
- Inner/Outer gloves - assorted types
- Chem Tape (duct tape for training only)

Fire Hose, Foam Nozzles and Eductors, Foam
Pictures/slides of various railcar, intermodal, and highway cargo trailers
Pictures/slides of bulk and non-bulk containers, and fixed facility containment systems

Defensive Spill Equipment:

- Absorbent/Adsorbent
- Broom/Shovel
- 5-gallon buckets
- Assortment of boom and pads

Decontamination Equipment:

- Poly sheeting or tarp
- Duct tape
- Traffic cone(s)
- Decon Pools
- Sprayer(s)
- Garden hose(s) and sprayer/nozzles
- 5-gallon bucket(s)
- Various Decon solution(s)
- Folding chairs
- Overpack drum

Various monitoring detection equipment as may be required. Examples *may* include:

- Combustible Gas Indicator
- Oxygen Meter
- Radiation Detector

Hazardous Materials Operations – Mission Specific Competencies

Equipment needed for training to Hazardous Materials Operations – Mission Specific Competencies will be based the competencies themselves and the authority having jurisdiction (AHJ). Equipment, at a minimum, will include that which is required to train to the Hazardous Materials Operations Level. Additional equipment or props may include part or all of the equipment listed below for Hazardous Materials Technician.

For example, if training to the Mission Specific Competencies: Air Monitoring and Sampling is to be performed, additional monitoring detection and sampling equipment will be required.

Hazardous Materials Technician

Awareness and Operations equipment *plus…*

Reference Material:

- CPC Permeation Guides/Tables
- BOE/AAR *Field Guide to Railcar Identification*
- NFPA *Fire Protection Guide to Hazardous Materials Detection*
- Other printed or electronic publications/databases as may be required by the AHJ

Various monitoring detection equipment and corresponding samples to include:

- Combustible Gas Indicator
- Oxygen Meter
- Carbon monoxide meter
- Gas specific meter
- Photoionization detector
- Radiation Detectors (alpha, beta, gamma)
- Colorimetric tubes, pump
- Classifier/detection strips and reagents
- pH paper or pH meter
- additional monitoring and detection equipment as may be required by AHJ
- Calibration kit(s) as required for above

Leak & Spill Equipment:

- Plugging/patching supplies
- Leaking drum(s): metal & poly
- Overpack drum(s)
- Leak pipe simulator
- 150 lbs. Chlorine cylinder leak prop
    - Chlorine emergency kit type “A”
- Chlorine 1-Ton cylinder leak prop
    - Chlorine emergency kit type “B”
- Pressure Railcar dome leak prop
    - Chlorine emergency kit type “C” or Midland kit
- Cargo Tank Leak Simulator (MC-306/DOT-406 Dome)
- Dome Cover Clamp
- Grounding & Bonding Kit
- Product Transfer Equipment
- Misc. Hand Tools (e.g., hand wrenches, bung wrench, spanner wrench, mallet, screwdrivers, etc.)

Command and Control Equipment/Forms (e.g., Incident Action Plan, Site Safety Plan, Medical Plan, Communication Plan - all NIMS/ICS compliant)

<u>Hazardous Materials Incident Commander</u>

Reference Material

- Department of Transportation’s *Emergency Response Guidebook* (ERG) (current ed.)
- Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS) - Samples
- Transportation/Shipping document – Sample
- NIOSH *Pocket Guide to Chemical Hazards*

- NFPA *Hazardous Materials / Weapons of Mass Destruction Response Handbook* (current edition)
- CPC Permeation Guides/Tables
- BOE/AAR *Field Guide to Railcar Identification*
- NFPA *Fire Protection Guide to Hazardous Materials Detection*
- Other printed or electronic publications/databases as may be required by the AHJ

Command and Control Equipment/Forms

- Department of Homeland Security – National Incident Management System/Incident Command System standardized forms
    - ICS 201 Incident Briefing Form
    - ICS 202 Incident Objectives Worksheet
    - ICS 203 Organization Assignment List
    - ICS 204 Division Assignment List
    - ICS 205 Communications Plan
    - ICS 206 Medical Plan
    - ICS 208HM Site Safety and Control Plan
    - ICS 211 Incident Check-in List
    - ICS 213 General Message
    - ICS 214 Unit Log
    - ICS 215 Incident Planning Worksheet
    - ICS 215A Incident Action Plan Safety Analysis

TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

GENERAL
DOT Emergency Response Guidebook
Skill # 1

PERFORMANCE STANDARD **Section 601**

NFPA 472, 2013 edition, 4.1.2.2, 4.2.3, 4.4.1 **Awareness**

OBJECTIVE
Given examples of hazardous materials/WMD incidents, the emergency response plan, the standard operating procedures, and the current edition of the DOT *Emergency Response Guidebook,* awareness level personnel shall be able to identify the actions to be taken to protect themselves and others and to control access to the scene and shall meet the following requirements:

4.1.2.2 (1)
Analyze the incident to determine both the hazardous material/WMD present and the basic hazard and response information for each hazardous material/WMD agent by completing the required tasks.

4.1.2.2 (2)
Implement actions consistent with the authority having jurisdiction (AHJ), the standard operating procedures, and the current edition of the DOT *Emergency Response Guidebook* by completing the required tasks.

4.2.3
Given the identity of various hazardous materials/WMD (name, UN/NA identification number, or type of placard), the awareness level personnel shall identify the fire, explosion, and health hazard information for each material by using the current edition of the DOT *Emergency Response Guidebook* by completing the following requirements.

4.4.1
Given examples of hazardous materials/WMD incidents, the emergency response plan, the standard operating procedures, and the current edition of the DOT *Emergency Response Guidebook*, awareness level personnel shall be able to identify the actions to be taken to protect themselves and others and to control access to the scene and shall meet all requirements.

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INSTRUCTIONS - procedures for achieving the objective
Given the most current edition of the *Emergency Response Guidebook* and a scenario or worksheet, you shall analyze, identify and describe, as may be required, the actions that are appropriate for the safe implementation of awareness level response measures.

You shall respond verbally or in the written form as may be appropriate. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

Coordinators and Instructors: Refer to the example scenario & worksheet attached to this skill for additional guidance.

PREPARATION & EQUIPMENT
Emergency Response Guidebook, most current edition
A written or audio/visual representation of a scene or scenario (i.e. PowerPoint Presentation) or an instructor prepared worksheet.

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

GENERAL
DOT Emergency Response Guidebook
Skill #1

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS AWARENESS	TEST		RETEST	
Skill #1	**S**	**U**	**S**	**U**
Analyze the incident to determine both the hazardous material/WMD present and the basic hazard and response information for each hazardous material/WMD agent by completing the following tasks (4.1.2.2 (1))				
Implement actions consistent with the authority having jurisdiction (AHJ), the standard operating procedures, and the current edition of the DOT *Emergency Response Guidebook* by completing the required tasks (4.1.2.2 (2))				
Given the identity of various hazardous materials/WMD (name, UN/NA identification number, or type of placard), the awareness level personnel shall identify the fire, explosion, and health hazard information for each material by using the current edition of the DOT *Emergency Response Guidebook* by completing the following requirements. (4.2.3)				
Given examples of hazardous materials/WMD incidents, the emergency response plan, the standard operating procedures, and the current edition of the DOT *Emergency Response Guidebook*, awareness level personnel shall be able to identify the actions to be taken to protect themselves and others and to control access to the scene and shall meet the following requirements. (4.4.1)				
The candidate shall:	**S**	**U**	**S**	**U**

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a) Identify the Hazardous Material/WMD and/or the UN ID number for the unidentified material.				
b) Look up the Hazardous Material/WMD name in the appropriate section. • Use the yellow section to obtain information based on the chemical ID number, or • Use the blue section to obtain information based on the alphabetical chemical name				
c) Note any highlighted entries and verbally identify it as a Toxic Inhalation Hazard (TIH).				
d) Determine the correct emergency action guide to use for the Hazardous Material/WMD identified based on: • Table of Placards, or • The Rail Car Identification Chart, or • The Road Trailer Identification Chart, or • The UN Number, or • The name of the Hazardous Material/WMD				
e) Identify the potential fire and explosion and/or health hazards for the identified Hazardous Material/WMD.				
f) Identify the isolation distance and the protective actions required for the identified Hazardous Material/WMD. • Use the green section for Toxic Inhalation Hazards isolation distances when not involved in a fire • Use the orange guide page for all other isolation distances				
g) Identify the appropriate emergency response actions for the identified Hazardous Material/WMD found on the orange guide pages based on the given scenario.				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

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_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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Emergency Response Guidebook Worksheet Guidelines for Development and Use

- The following worksheet is an example of a instructor designed worksheet that could be used to test a firefighter trainee's ability to properly use an Emergency Response Guidebook during a Hazardous Materials response. This worksheet has been designed to be completed using the 2012 edition of the Emergency Response Guidebook.
- The use of this worksheet would be suitable for training purposes. However, for skill examination purposes, it is expected that images, placards, UN numbers, and chemical names would be changed.
- This is not a single source solution skills examination evaluation. The development and use of a unique worksheet would be appropriate, acceptable and encouraged.
- Minimum worksheet development guidelines should include the following minimal content items as a general rule:
  - Hazardous Materials identification by UN Number (Yellow Section)
  - Hazardous Materials identification by Chemical Name (Blue Section)
  - Identify the correct
  - The ability to derive information from the Emergency Action Guide pages (Orange Section) including :
    - Potential Fire and Explosion Hazards
    - Potential Health Hazards
    - Protective Clothing Selection
    - Evacuation Considerations
    - Firefighting Measures
    - Spill or Leak recommended control measures
    - Immediate First Aid actions
  - The identification of Isolation Distances and Protective Actions for Non-Toxic Inhalation Hazards (Orange Section)
  - The identification of Initial Isolation Distances and Downwind Protective Distances for Toxic Inhalation Hazards (Green Section)

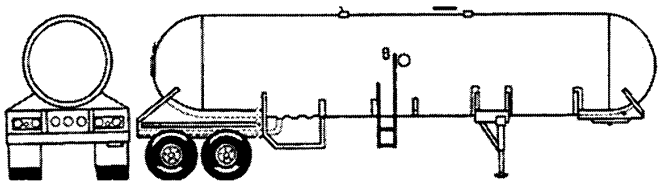
2012 Emergency Response Guidebook Name:_____

Worksheet

Date: _____

Using the ***2012 Emergency Response Guidebook*** solve the following problems:

1. What is the initial ***isolation zone*** and ***downwind protective action distance*** day and night when there is a small leak from the highway cargo tanker pictured here?



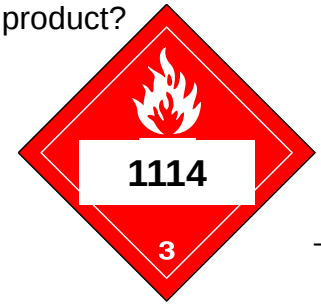
_____

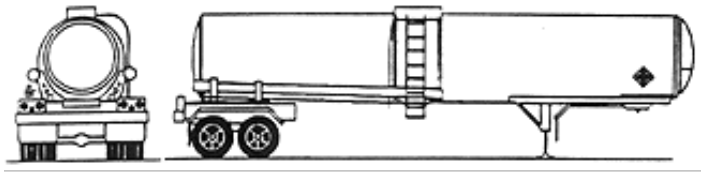
_____

2. What is the ***primary hazard*** of the product with the ID number **UN1824**

_____

3. What type of ***fire fighting foam*** should be used on a large spill fire involving the product in this highway cargo tanker? Are there ***toxic effects*** associated with this product?





_____

_____

4. What type of protective clothing should be worn to handle a spill involving **Hydrofluoric acid, solution**?

_____

5. In case of accidental eye contact with **methanol,** what actions should you take?

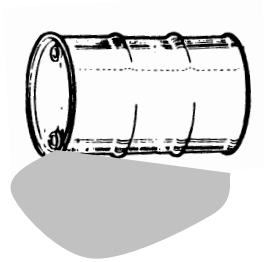
_____

6. What are the recommended **extinguishing agents** for the product with this placard? What is this product?

_____

_____

7. Which **guide number** should be used for the product spilled from the drum in this picture?



Guide Number: _____

8. Identify the **hazards and product name** of this display found on an intermodal container.

_____

_____

9. What is the **recommended evacuation distance** if a truck load of explosives with this placard is involved in a fire?

_____

_____

10. If **Styrene, monomer, stabilized** is exposed to **excessive heat**, what may occur?

_____

11. What types of extinguishing agents should **<u>not</u>** be applied to fires involving **Perchloric acid UN1802**?

_____

12. What is Protective Clothing and Respiratory Protection recommendation for a response involving **Chloropicrin**?

_____

13. Which guide number should be used for emergency response information for a spill involving material with this placard?

Guide Number: _____

14. What are the emergency response telephone numbers for **CHEMTREC®** and the **NATIONAL RESPONSE CENTER (NRC)**?

NRC #: _____

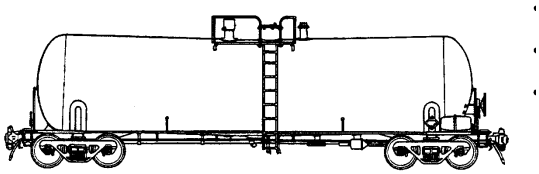
CHEMTREC#: _____

15. If water is leaking into a cargo hold of a barge containing **UN1830**, what may occur?

_____

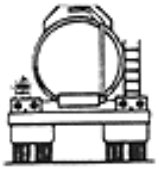
16. Which guide number would you use to find response information about the railcar pictured here?

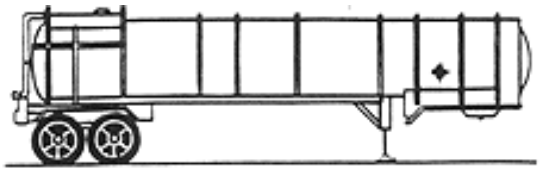
Guide Number: _____



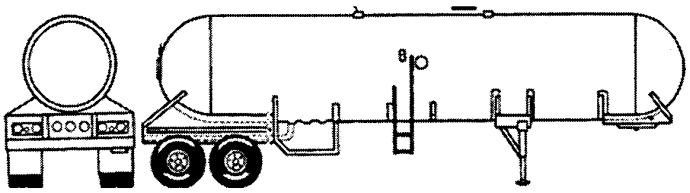
17. Which guide number would you use to find response information about the highway cargo tanker pictured here?

Guide Number: _____





18. If the highway cargo tanker pictured below is involved in a fire, what **sights or sounds** should cause an immediate withdrawal of emergency response personnel?



_____

19. If a container of the material with this placard is submerged in water, what Toxic-by-Inhalation (TIH) gas may be produced?

_____

_____

20. Is **UN1053** a flammable gas? What is it's primary hazard, fire or toxicity?

_____

_____

21. If an unconscious person is contaminated with “Boron trifluoride diethyl etherate” is mouth-to- mouth a recommended first-aid procedure?

Guide _____

_____

_____

22. Why does “Propadiene, inhibited” have a “P” following the Guide Number in the blue-bordered Section?

_____

_____

23. If a large amount of “Sulfuryl chloride” is spilled into water during the day, what is the initial isolation distance and downwind protective distance that should be implemented?

UN Identification Number _____

Initial Isolation distance _____**.**

24. What toxic gase(s) may be produced by the reaction between sulfuryl chloride and water?

_____

25. What general safety precautions are recommended by the 2012 North American Emergency Response Guidebook?

1. _____.

2. _____.

3. _____.

4. _____.

5. _____.

6. _____.

7. _____.

8. _____.

TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

Analyzing the Incident
Container Recognition
Skill # 2

PERFORMANCE STANDARD **Section 601**

NFPA 472, 2013 edition, 4.2.1(6) **Awareness**

OBJECTIVE
Given examples of containers, awareness level personnel shall be able to recognize typical container shapes that may indicate the possible presence of a hazardous materials/WMD.

4.2.1 (6)
Identify typical container shapes that can indicate the presence of a hazardous materials/WMD.

INSTRUCTIONS - procedures for achieving the objective
Given a scenario, worksheet, or audio/visual presentation you shall identify the type of container represented. You shall respond verbally or in the written form as may be appropriate. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
A worksheet or audio/visual presentation (i.e. PowerPoint Presentation) or an instructor prepared worksheet.

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

Analyzing the Incident
Container Recognition
Skill # 2

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS AWARENESS	TEST		RETEST	
Skill #2	**S**	**U**	**S**	**U**
Detecting the Presence of Hazardous Materials/WMD Identify typical container shapes that can indicate the presence of a hazardous materials/WMD. 4.2.1 (6)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Identify Non Bulk Containers • Dry Goods Container (i.e. Bag or Fiberboard Drum), or • Liquid Container (i.e. Steel or Poly Drum), or • Pressure Vessel/ Gas Cylinder, or • Cryogenic Container (i.e. Dewar), or • Radiation Container (Type A or Type B Packaging)				
b) Identify Bulk Containers • Rail Cars (i.e. Pressure Car, Non Pressure Car, Special Purpose Car), or • Road Trailers (i.e. Non Pressure, Corrosive, Dry Bulk Trailers), or • Intermodal Containers				
c) Identify Fixed Facility Storage Systems (i.e. Above Ground Storage Tanks)				
d) Identify Pipeline				
e) Identify Ships or Marine Vessels (i.e. Tankers, Cargo Vessels, Barges)				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:
_____

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

_____

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_____

_____

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_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

Analyzing the Incident
Hazard Recognition
Skill # 3

PERFORMANCE STANDARD **Section 601**

NFPA 472, 2013 edition, 4.2.1(7), 4.2.1(8), 4.2.1(9) **Awareness**

OBJECTIVE
Given facility/transportation markings that indicate the presence of hazardous materials/WMD, describe the significance of each marking system's colors, numbers, and special symbols used.

4.2.1 (7)
Identify facility and transportation markings and colors that indicate hazardous materials/WMD

4.2.1 (8)
Given an NFPA 704 marking, describe the significance of the colors, numbers, and special symbols

4.2.1 (9)
Identify U.S. and Canadian placards and labels that indicate hazardous materials/WMD

INSTRUCTIONS - procedures for achieving the objective
Given a scenario, worksheet, or audio/visual presentation you shall describe/identify the significance of the markings, colors, numbers, and special symbols used for facility and transportation hazard marking systems. You shall respond verbally or in the written form as may be appropriate. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
A worksheet or audio/visual presentation (i.e. PowerPoint Presentation) or an instructor prepared worksheet.

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

Analyzing the Incident
Hazard Recognition
Skill # 3

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS AWARENESS	TEST		RETEST	
Skill #3	**S**	**U**	**S**	**U**
Identify facility and transportation markings and colors that indicate hazardous materials/WMD (4.2.1 (7))				
The candidate shall:	**S**	**U**	**S**	**U**
Describe the significance of the markings, colors, numbers, and special symbols used for:				
a) Transportation markings, including: • UN/NA identification number markings • Marine pollutant mark • Elevated temperature (hot) mark • Commodity markings • Inhalation hazard mark				
b) NFPA 704, Standard System for the Identification of the Hazards of Materials for Emergency Response, markings				
c) Military hazardous materials/WMD markings				
d) Special hazard communication markings for each hazard class				
e) Pipeline markings				
f) Container Markings				
Given an NFPA 704 marking, describe the significance of the colors, numbers, and special symbols (4.2.1 (8))				
The candidate shall:	**S**	**U**	**S**	**U**
Describe the significance of the colors, numbers, and special symbols used for:				
a) The Blue/Health panel				
b) The Red/Flammability panel				
c) The Yellow/Reactive panel				
d) The White/Special Hazard panel				

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

Identify U.S. and Canadian placards and labels that indicate hazardous materials/WMD (4.2.1 (9))				
The candidate shall:	**S**	**U**	**S**	**U**
Identify the placards and labels for:				
a) Class 1 - Explosives • Division 1.1 Explosives w/Mass Explosion Hazard • Division 1.2 Explosives w/Projectile Hazard • Division 1.3 Explosives w/Fire Hazard • Division 1.4 Explosives w/No Significant Blast Hazard • Division 1.5 Very Insensitive Explosives w/a Mass Explosion Hazard • Division 1.6 Extremely Insensitive Articles				
b) Class 2 - Gases • Division 2.1 Flammable Gases • Division 2.2 Non Flammable/Non Toxic Gases • Division 2.3 Toxic Gases				
c) Class 3 - Flammable and Combustible Liquids				
d) Class 4 - Flammable Solids; Spontaneously Combustible Liquids; and Dangerous when Wet Materials/Water Reactive Substances • Division 4.1 Flammable Solids • Division 4.2 Spontaneously Combustible Liquids • Division 4.3 Wet Materials/Water Reactive Substances				
e) Class 5 - Oxidizing Substances and Organic Peroxides • Division 5.1 Oxidizing Substances • Division 5.2 Organic Peroxides				
f) Class 6 - Toxic and Infectious Substances • Division 6.1 Toxic Gases • Division 6.2 Infectious Substances				
g) Class 7 - Radioactive Materials				
h) Class 8 - Corrosive Substances				
i) Class 9 - Miscellaneous Hazardous Materials/Products/Substances, or Organisms				

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Awareness
Performance Standards

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

General
Analyze, Plan, Implement, and Evaluate Response Objectives
Skill #1

PERFORMANCE STANDARD **Section 602**

NFPA 472, 2013 edition, 5.1.2.2 **Operations**

OBJECTIVE

When responding to hazardous materials/WMD incidents, operations level responders shall be able to perform the following tasks:

(1) Analyze a hazardous materials/WMD incident to determine the scope of the problem and potential outcomes by completing the following tasks:
- (a) Survey a hazardous materials/WMD incident to identify the containers and materials involved, determine whether hazardous materials/WMD have been released, and evaluate the surrounding conditions.
- (b) Collect hazard and response information from MSDS; CHEMTREC/CANUTEC/SETIQ; local, state, and federal authorities; and shipper/manufacturer contacts.
- (c) Predict the likely behavior of a hazardous material/WMD and its container.
- (d) Estimate the potential harm at a hazardous materials/WMD incident.

(2) Plan an initial response to a hazardous materials/WMD incident within the capabilities and competencies of available personnel and personal protective equipment by completing the following tasks:
- (a) Describe the response objectives for the hazardous materials/WMD incident.
- (b) Describe the response options available for each objective.
- (c) Determine whether the personal protective equipment provided is appropriate for implementing each option.
- (d) Describe emergency decontamination procedures.
- (e) Develop a plan of action, including safety considerations.

(3) Implement the planned response for a hazardous materials/WMD incident to favorably change the outcomes consistent with the emergency response plan and/or standard operating procedures by completing the following tasks:

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(a) Establish and enforce scene control procedures, including control zones, emergency decontamination, and communications.
(b) Where criminal or terrorist acts are suspected, establish means of evidence preservation.
(c) Initiate an incident command system (ICS) for hazardous materials/WMD incidents.
(d) Perform tasks assigned as identified in the incident action plan.
(e) Demonstrate emergency decontamination.

(4) Evaluate the progress of the actions taken at a hazardous materials/WMD incident to ensure that the response objectives are being met safely, effectively, and efficiently by completing the following tasks:
(a) Evaluate the status of the actions taken in accomplishing the response objectives.
(b) Communicate the status of the planned response.

INSTRUCTIONS - procedures for achieving the objective
Given a scenario, emergency response and hazardous materials equipment to include reference sources and PPE/CPC, you will implement a planned response to favorably change the outcomes consistent with the local emergency response plan and the organization's standard operating procedures. You will also evaluate the progress of the actions taken to ensure that the response objectives are being met safely, effectively, and efficiently. You will be operating as part of a team. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
An SDS and/or MSDS may be provided to the candidate. The candidate will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
Hazardous materials scenario
North American *Emergency Response Guidebook*, current edition
SDS or MSDS
Additional hazmat references per AHJ
Personal protective equipment
Chemical protective clothing (AHJ)
Local emergency response plan (AHJ)
Standard operating procedures (AHJ)
Emergency Response and Hazardous Materials Response Equipment per AHJ

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

General
Analyze, Plan, Implement, and Evaluate Response Objectives
Skill #1

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS	TEST		RETEST	
Skill #1	**S**	**U**	**S**	**U**
When responding to hazardous materials/WMD incidents, operations level responders shall be able to perform the following tasks: (1) Analyze a hazardous materials/WMD incident to determine the scope of the problem and potential outcomes by completing the following tasks: (a) Survey a hazardous materials/WMD incident to identify the containers and materials involved, determine whether hazardous materials/WMD have been released, and evaluate the surrounding conditions. (b) Collect hazard and response information from MSDS; CHEMTREC/CANUTEC/SETIQ; local, state, and federal authorities; and shipper/manufacturer contacts. (c) Predict the likely behavior of a hazardous material/WMD and its container. (d) Estimate the potential harm at a hazardous materials/WMD incident. (2) Plan an initial response to a hazardous materials/WMD incident within the capabilities and competencies of available personnel and personal protective equipment by completing the following tasks: (a) Describe the response objectives for the hazardous materials/WMD incident.				

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(b) Describe the response options available for each objective. (c) Determine whether the personal protective equipment provided is appropriate for implementing each option. (d) Describe emergency decontamination procedures. (e) Develop a plan of action, including safety considerations. (3) Implement the planned response for a hazardous materials/WMD incident to favorably change the outcomes consistent with the emergency response plan and/or standard operating procedures by completing the following tasks: (a) Establish and enforce scene control procedures, including control zones, emergency decontamination, and communications. (b) Where criminal or terrorist acts are suspected, establish means of evidence preservation. (c) Initiate an incident command system (ICS) for hazardous materials/WMD incidents. (d) Perform tasks assigned as identified in the incident action plan. (e) Demonstrate emergency decontamination. (4) Evaluate the progress of the actions taken at a hazardous materials/WMD incident to ensure that the response objectives are being met safely, effectively, and efficiently by completing the following tasks: (a) Evaluate the status of the actions taken in accomplishing the response objectives. (b) Communicate the status of the planned response. (5.1.2.2)				
The candidate shall:	**S**	**U**	**S**	**U**
(1) Analyze a hazardous materials/WMD incident to determine the scope of the problem and potential outcomes by completing the following tasks:				

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(a) Survey a hazardous materials/WMD incident to identify the containers and materials involved, determine whether hazardous materials/WMD have been released, and evaluate the surrounding conditions.				
(b) Collect hazard and response information from MSDS; CHEMTREC /CANUTEC /SETIQ; local, state, and federal authorities; and shipper/manufacturer contacts.				
(c) Predict the likely behavior of a hazardous material/WMD and its container.				
(d) Estimate the potential harm at a hazardous materials/WMD incident.				
(2) Plan an initial response to a hazardous materials/WMD incident within the capabilities and competencies of available personnel and personal protective equipment by completing the following tasks:				
(a) Describe the response objectives for the hazardous materials/WMD incident.				
(b) Describe the response options available for each objective.				
(c) Determine whether the personal protective equipment provided is appropriate for implementing each option.				
(d) Describe emergency decontamination procedures.				
(e) Develop a plan of action, including safety considerations.				
(3) Implement the planned response for a hazardous materials/WMD incident to favorably change the outcomes consistent with the emergency response plan and/or standard operating procedures by completing the following tasks:				
(a) Establish and enforce scene control procedures, including control zones, emergency decontamination, and communications.				
(b) Where criminal or terrorist acts are suspected, establish means of evidence				

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preservation.				
(c) Initiate an incident command system (ICS) for hazardous materials/WMD incidents.				
(d) Perform tasks assigned as identified in the incident action plan.				
(e) Demonstrate emergency decontamination.				
(4) Evaluate the progress of the actions taken at a hazardous materials/WMD incident to ensure that the response objectives are being met safely, effectively, and efficiently by completing the following tasks:				
(a) Evaluate the status of the actions taken in accomplishing the response objectives.				
(b) Communicate the status of the planned response.				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Container Identification
Skill #2

PERFORMANCE STANDARD **Section 602**

NFPA 472, 2013 edition, 5.2.1, 5.2.1.1.1, 5.2.1.1.2, 5.2.1.1.3, 5.2.1.1.4, 5.2.1.1.5, 5.2.1.1.6, 5.2.1.1.7 **Operations**

OBJECTIVE

Given scenarios involving hazardous materials/WMD incidents, the operations level responder shall collect information about the incident to identify the containers, the materials involved, the surrounding conditions, and whether hazardous materials/WMD have been released.

Given three examples each of liquid, gas, and solid hazardous material or WMD, including various hazard classes, operations level personnel shall identify the general shapes of containers in which the hazardous materials/WMD are typically found.

Given examples of the following tank cars, the operations level responder shall identify each tank car by type, as follows:

(1) Cryogenic liquid tank cars
(2) Nonpressure tank cars (general service or low pressure cars)
(3) Pressure tank cars

Given examples of the following intermodal tanks, the operations level responder shall identify each intermodal tank by type, as follows:

(1) Nonpressure intermodal tanks
(2) Pressure intermodal tanks
(3) Specialized intermodal tanks, including the following:
    (a) Cryogenic intermodal tanks
    (b) Tube modules

Given examples of the following cargo tanks, the operations level responder shall identify each cargo tank by type, as follows:

(1) Compressed gas tube trailers
(2) Corrosive liquid tanks
(3) Cryogenic liquid tanks
(4) Dry bulk cargo tanks
(5) High pressure tanks
(6) Low pressure chemical tanks
(7) Nonpressure liquid tanks

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Given examples of the following storage tanks, the operations level responder shall identify each tank by type, as follows:

(1) Cryogenic liquid tank
(2) Nonpressure tank
(3) Pressure tank

Given examples of the following nonbulk packaging, the operations level responder shall identify each package by type, as follows:

(1) Bags
(2) Carboys
(3) Cylinders
(4) Drums
(5) Dewar flask (cryogenic liquids)

Given examples of the following packaging, the operations level responder shall identify the characteristics of each container or package by type as follows:

(1) Intermediate bulk container (IBC)
(2) Ton container

Given examples of the following radioactive material packages, the operations level responder shall identify the characteristics of each container or package by type, as follows:

(1) Excepted
(2) Industrial
(3) Type A
(4) Type B
(5) Type C

INSTRUCTIONS - procedures for achieving the objective

You will be presented images or diagrams of various container types and given a worksheet to complete. While doing the images/diagrams complete the worksheet by providing the following information concerning the containers: identify the container by name, by container type, by possible product class, by physical state of the product and any special features/considerations. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINER'S NOTE

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

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PREPARATION & EQUIPMENT

Several scenarios involving hazardous materials/WMD incidents and diagrams of the different types of containers of hazardous materials/WMD from the list below:

1. Images, diagrams, or multimedia presentation illustrating different types of containers to include:
    a. Highway cargo tanks
    b. Railcar tanks
    c. Intermodal tanks
    d. Fixed facility storage tanks
    e. Intermediate bulk containers
    f. Ton containers
    g. Non-bulk containers
    h. Radioactive material packages
2. Container identification worksheet

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Container Identification
Skill #2

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS	TEST		RETEST	
Skill #2	**S**	**U**	**S**	**U**
Given scenarios involving hazardous materials/WMD incidents, the operations level responder shall collect information about the incident to identify the containers, the materials involved, the surrounding conditions, and whether hazardous materials/WMD have been released. (5.2.1) Given three examples each of liquid, gas, and solid hazardous material or WMD, including various hazard classes, operations level personnel shall identify the general shapes of containers in which the hazardous materials/WMD are typically found. (5.2.1.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Correctly identifies railcar tank examples				
b) Correctly identifies highway cargo tank examples				
c) Correctly identifies intermodal tank examples				
d) Correctly identifies non-bulk container examples				
e) Correctly identifies intermediate bulk container examples				
f) Correctly identifies ton container examples				
g) Correctly identifies radioactive material package examples				
h) Correctly identifies fixed facility storage tank examples				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

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Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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Operations
Container Identification Worksheet

RAILCAR TANK		
	Container Name	
1		
2		
3		
INTERMODAL TANK		
	Container Name	Type/Specification
1		
2		
3		
4		
5		
HIGHWAY CARGO TANK		
	Container Name.	MC/DOT Specification
1		
2		
3		
4		
5		
6		
7		
NON-BULK CONTAINER PACKAGING		
	Container Name/Type	
1		
2		
3		
4		
5		
Intermediate Bulk Containers & Ton Containers		
	Container Name/Type	
1		
2		
3		
FIXED FACILITY STORAGE TANK		
	Container Name	
1		
2		
3		
RADIOACTIVE MATERIAL PACKAGING		
	Container Name	Characteristics
1		
2		
3		
4		
5		

TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Identify Pesticide Label
Skill #3

PERFORMANCE STANDARD **Section 602**

NFPA 472, 2013 edition, 5.2.1.3.2 **Operations**

OBJECTIVE
Given a pesticide label, the operations level responder shall identify each of the following pieces of information, and then match the piece of information to its significance in surveying hazardous materials incidents:

(1) Active ingredient
(2) Hazard statement
(3) Name of pesticide
(4) Pest control product (PCP) number (in Canada)
(5) Precautionary statement
(6) Signal word

INSTRUCTIONS - procedures for achieving the objective
Given a pesticide label and a worksheet, you shall complete the worksheet identifying the following information: 1) the name of the pesticide, 2) its active ingredient, 3) the hazard statement, 4) the EPA registration number or Pest Control Product (PCP) number (in Canada), 5) the precautionary statement, and 6) the signal word. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
Pesticide label
Pesticide label worksheet

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Identify Pesticide Label
Skill #3

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS	TEST		RETEST	
Skill #3	**S**	**U**	**S**	**U**
Given a pesticide label, the operations level responder shall identify each of the following pieces of information, and then match the piece of information to its significance in surveying hazardous materials incidents: (1) Active ingredient (2) Hazard statement (3) Name of pesticide (4) Pest control product (PCP) number (in Canada) (5) Precautionary statement (6) Signal word (5.2.1.3.2)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Identifies the active ingredient				
b) Identifies the hazard statement				
c) Identifies the name of pesticide				
d) Identifies the EPA registration number or Pest Control Product (PCP) number				
e) Identifies the precautionary statement				
f) Identifies the signal word				
g) Describes appropriate response actions for dealing with the identified product.				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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Pesticide Label Worksheet

Using the Pesticide label provided for _____answer the following questions:

1. What is the Active ingredient in this pesticide? _____
2. What information is provided in the Hazard Statement? _____
3. What is the Name of pesticide? _____
4. What is the EPA Registration Number (or Pest Control Product (PCP) number in Canada)? _____
5. What information is provided in the Precautionary Statement?

   _____

   _____

   _____

   _____

6. What Signal Word is used on the label? What does it mean?

   _____

   _____

   _____

   _____

7. What are the appropriate response actions for dealing with the identified product?

   _____

   _____

   _____

   _____

TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Collect Hazard and Response Information using SDS/MSDS
Skill #4

PERFORMANCE STANDARD **Section 602**

NFPA 472, 2013 edition, 5.2.2 (2), (3) **Operations**

OBJECTIVE
Given scenarios involving known hazardous materials/WMD, the operations level responder shall collect hazard and response information using MSDS, CHEMTREC/CANUTEC/SETIQ, governmental authorities, and shippers and manufacturers by completing the following requirements:

(2) Identify two ways to obtain an MSDS in an emergency.
(3) Using an MSDS for a specified material, identify the following hazard and response information:
- (a) Physical and chemical characteristics
- (b) Physical hazards of the material
- (c) Health hazards of the material
- (d) Signs and symptoms of exposure
- (e) Routes of entry
- (f) Permissible exposure limits
- (g) Responsible party contact
- (h) Precautions for safe handling (including hygiene practices, protective measures, and procedures for cleanup of spills and leaks)
- (i) Applicable control measures, including personal protective equipment
- (j) Emergency and first-aid procedures

INSTRUCTIONS - procedures for achieving the objective
Given a material safety data sheet (MSDS) or safety data sheet (SDS) and the corresponding worksheet, you shall collect the following information and record it on the worksheet:

- (a) Physical and chemical characteristics
- (b) Physical hazards of the material
- (c) Health hazards of the material
- (d) Signs and symptoms of exposure
- (e) Routes of entry
- (f) Permissible exposure limits
- (g) Responsible party contact
- (h) Precautions for safe handling (including hygiene practices, protective measures, and procedures for cleanup of spills and leaks)

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(i) Applicable control measures, including personal protective equipment
(j) Emergency and first-aid procedures

You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
An SDS or an MSDS sheet may be provided to the candidate. The candidate will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
Various safety data sheets and/or material safety data sheets
SDS/MSDS worksheet

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Collect Hazard and Response Information using SDS/MSDS
Skill #4

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS	TEST		RETEST	
Skill #4	**S**	**U**	**S**	**U**
Given scenarios involving known hazardous materials/WMD, the operations level responder shall collect hazard and response information using MSDS, CHEMTREC/CANUTEC/SETIQ, governmental authorities, and shippers and manufacturers by completing the following requirements: (2) Identify two ways to obtain an MSDS in an emergency. (3) Using an MSDS for a specified material, identify the following hazard and response information: (a) Physical and chemical characteristics (b) Physical hazards of the material (c) Health hazards of the material (d) Signs and symptoms of exposure (e) Routes of entry (f) Permissible exposure limits (g) Responsible party contact (h) Precautions for safe handling (including hygiene practices, protective measures, and procedures for cleanup of spills and leaks) (i) Applicable control measures, including personal protective equipment (j) Emergency and first-aid procedures (5.2.2)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Identify two ways to obtain an MSDS in an emergency				
b) Identify physical and chemical characteristics				
c) Identify physical hazards of the material				

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d) Identify health hazards of the material				
e) Identify the signs and symptoms of exposure				
f) Identify routes of entry				
g) Identify the permissible exposure limits				
h) Identify responsible party contact				
i) Identify the precautions for safe handling (including hygiene practices, protective measures, and procedures for cleanup of spills and leaks)				
j) Identify applicable control measures, including personal protective equipment				
k) Identify emergency and first-aid procedures				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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Material Safety Data Sheet
Worksheet

Using the Material Safety Data Sheet for _____
provided to answer the following questions:

1. What are two ways to obtain an MSDS during an emergency?
   - _____
   - _____

Identification

2. What other names or identities does this product ship as? _____

   _____

3. What is it's CAS#? _____
4. What is the UN # and hazard class? _____

Physical and Chemical Characteristics

5. What is it's appearance and odor?_____
6. What is it's boiling point? _____
7. What is it's freezing point? _____
8. What is it's Specific Gravity? _____
9. Is that as a solid, liquid or gas? _____
10. What is it's Vapor Density? _____
    - Will it sink or float when released? _____
11. Is there an associated fire hazard? _____
    - If so, describe it: _____
12. What is the flash point and ignition temperature of this product/chemical?

    _____

13. What is the expansion ratio of this product/chemical? _____
14. What is the pH? _____

Physical Hazards

15. What are the primary physical hazards associated with this product/chemical?

    _____

Health Hazards

16. Is this product/chemical a carcinogen? _____
17. Is this product/chemical a teratogen or mutagen? If so, which? _____
18. Is this product/chemical a radioactive? _____
19. Are there any special health safety precautions that must be observed? If so, what are they? _____

Signs & Symptoms of Exposure

20. What are the signs and symptoms of exposure to this product/chemical?

    _____

    _____

Routes of Entry

21. What are the primary routes of exposure? _____

Permissible Exposure Limits

22. What is the PEL? _____
23. What is the STEL? _____
24. What is the IDLH? _____
25. What is the LD_{50} or LC_{50}? _____

Responsible Party Contact Information

26. Who is the shipper? _____
    - What is their phone number? _____
27. Who is the manufacture? _____
    - What is their phone number? _____
28. In case of emergency who do you call? _____

- What is their phone number? _____

Precautions

29. What materials are incompatible or reactive with this product/chemical?

    _____

Hygiene Practices

30. What hygiene practices are necessary when dealing with this product/chemical?

    _____

Protective Measures

31. What protective measures/actions should be followed with this product/chemical?

    _____

Cleanup Procedures

32. What cleanup protocols should be utilized when mitigating a release or spill of this product/chemical? _____

Control Measures

33. What control measures should be employed when there is a spill or release of this product/chemical? _____
34. What firefighting considerations are there when responding to a fire involving this product/chemical? _____

Protective Equipment

35. What is the recommended personal protective equipment recommendation for this product/chemical?_____

Emergency/First Aid Procedures

36. What first aid procedures should be used for an exposure to this product/chemical?

    _____

    _____

Safety Data Sheet
Worksheet

Use the Safety Data Sheet for _____ provided to answer the following questions:

1. What are two ways to obtain an SDS during an emergency?

    a. _____

    b. _____

Section 1. Identification

2. What is the chemical/product name? _____
3. What other names can this product be shipped as? _____

    _____

4. How is this chemical used? _____
5. Are there restrictions on its use? If so what are they? _____

    _____

6. Who is the manufacturer or responsible party? _____
7. What is their emergency contact number or numbers?_____

    _____

8. Who is the shipper?_____
9. What is their contact number?_____
10. What is their Emergency contact number?_____

Section 2. Hazard Identification

11. What is it's GHS Classification for Health?_____
12. What is it for Environmental? _____
13. What is it for Physical? _____
14. What is it's Signal Word? _____
15. What Hazard Statements are listed? _____

_____

_____

_____

16. What Symbols are used? _____

17. What Precautionary Statements are listed? _____

_____

_____

_____

Section 3. Composition

18. What is the chemical's name? _____

19. What is the chemical's common name or synonyms? _____

_____

_____

20. What is the chemical's CAS number? _____

21. If this chemical is a mixture, what are the names and concentrations of the ingredients of the hazardous chemicals in it? _____

_____

_____

Section 4. First Aid Measures

22. What routes of exposure are of concern with this chemical? _____

_____

_____

23. What are the symptoms of exposure?

    a. Acute:_____

    _____

b. Chronic:_____

_____

24. What are the First Aid Measures that need to be applied if there is an accidental release with exposure to this product? _____

_____

_____

_____

Section 5. Firefighting Measures

25. What extinguishing agents should be applied to this product in case of a fire?

_____

_____

26. What special hazards should be considered if this chemical is involved in a fire?

_____

_____

27. What protective equipment should be used if this chemical is involved in a fire?

_____

_____

Section 6. Accidental Release Measures

28. What are the precautions and procedures for handling an accidental release of this product?

a. Personal Precautions: _____

b. Protective Equipment: _____

_____

c. Emergency Procedures: _____

_____

d. Environmental Precautions: _____

_____

e. Methods and materials for containment and clean-up:_____

_____

Section 7. Handling and Storage

29. What is the recommended handling procedure for this product? _____

_____

30. What is the recommended storage procedure for this product? _____

_____

31. What products or chemicals are incompatible with this product? _____

_____

Section 8. Exposure Control / Personal Protection

32. What is the PEL? _____

33. What is the STEL? _____

34. What is the IDLH? _____

35. What is the LD50 or LC50?_____

36. What PPE should be used for handling this product?_____

_____

Section 9. Physical and Chemical Properties

37. Appearance:_____

38. Odor:_____

39. PH:_____

40. Melting/Freezing Point:_____

41. Boiling Point:_____

42. Flash Point:_____

43. Specific Gravity:_____

44. Solubility:_____

45. Auto-Ignition Temp:_____

46. Vapor Density:_____

47. Vapor Pressure:_____

48. Expansion Ratio:_____

49. Flammable Range:_____

Section 10. Stability and reactivity

50. Is it stable? If not, why?_____

51. Is it reactive? _____

    a. If so, what is it incompatible with?_____

    b. What does it produce?_____

52. Conditions to avoid? _____

    _____

53. Hazardous products of decomposition? _____

    _____

Section 11. Toxicological Information

54. Is the product a carcinogen? _____

55. Is this product a teratogen or mutagen?_____

56. Is this product radioactive?_____

Section 12. Ecological Information

57. What are the ecological concerns for a release of this product?_____

    _____

Section 13. Disposal considerations

58. What are the recommended disposal considerations for this product? _____

    _____

Section 14. Transportation Information

59. What is it's proper shipping name?_____

60. What is it's UN # ?_____

61. What is it's Hazard class or classes?_____

62. In what packing group does it belong? _____

63. Is this chemical/product a marine pollutant? _____

Section 15. Regulatory Information

64. What safety, health, and/or environmental regulations are specific to this product? _____

_____

_____

_____

Section 16. Other Information

65. When was this SDS last revised? _____

66. Is there any other additional information of special concern? _____

_____

_____

_____

_____

TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Estimating the Size of an Endangered Area
Skill #5

PERFORMANCE STANDARD **Section 602**

NFPA 472, 2013 edition, 5.2.4 (1), (2) **Operations**

OBJECTIVE
Given scenarios involving hazardous materials/WMD incidents, the operations level responder shall describe the potential harm within the endangered area at each incident by completing the following requirements:

(1) Identify a resource for determining the size of an endangered area of a hazardous materials/WMD incident.
(2) Given the dimensions of the endangered area and the surrounding conditions at a hazardous materials/WMD incident, describe the number and type of exposures within that endangered area.

INSTRUCTIONS - procedures for achieving the objective
Given the most current edition of the *Emergency Response Guidebook*, a map or area description and a scenario involving a hazardous materials incident, you shall identify the size of an endangered area and estimate the number and type of exposures within that endangered area. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
Emergency Response Guidebook, most current edition
Map or narrative description of an incident area
A scenario involving a hazardous materials incident

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Analyzing the Incident
Estimating the Size of an Endangered Area
Skill #5

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS	TEST		RETEST	
Skill #5	**S**	**U**	**S**	**U**
Given scenarios involving hazardous materials/WMD incidents, the operations level responder shall describe the potential harm within the endangered area at each incident by completing the following requirements: (1) Identify a resource for determining the size of an endangered area of a hazardous materials/WMD incident. (2) Given the dimensions of the endangered area and the surrounding conditions at a hazardous materials/WMD incident, describe the number and type of exposures within that endangered area. (5.2.4)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Using the *Emergency Response Guidebook*, identify the size of the endangered area for the hazardous materials incident in the scenario				
b) Describe the number and type of exposures within the endangered area: • Estimate the number of people located in the endangered area • Identify the environment (lakes, rivers and streams; urban, rural, etc.) • Identify the type of property within the endangered area based on the scenario or map/area provided (schools, hospital, dwellings, nursing homes, etc.)				
c) Identify the significance the time of day or weather may play if applicable				

S = Satisfactorily completed/performed

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Implementing the Planned Response
Establishing Scene Control Zones and Implementing Public Protective Actions
Skill #6

PERFORMANCE STANDARD **Section 602**

NFPA 472, 2013 edition, 5.4.1 (1), (2), (3), (4), (5), (6) **Operations**

OBJECTIVE
Given two scenarios involving hazardous materials/WMD incidents, the operations level responder shall explain how to establish and maintain scene control, including control zones and emergency decontamination, and communications between responders and to the public by completing the following requirements:

(1) Identify the procedures for establishing scene control through control zones.
(2) Identify the criteria for determining the locations of the control zones at hazardous materials/WMD incidents.
(3) Identify the basic techniques for the following protective actions at hazardous materials/WMD incidents:
    (a) Evacuation
    (b) Shelter-in-place
(4) Demonstrate the ability to perform emergency decontamination.
(5) Identify the items to be considered in a safety briefing prior to allowing personnel to work at the following:
    (a) Hazardous material incidents
    (b) Hazardous materials/WMD incidents involving criminal activities
(6) Identify the procedures for ensuring coordinated communication between responders and to the public.

INSTRUCTIONS - procedures for achieving the objective
Given a scenario involving a hazardous materials/WMD incident, an *Emergency Response Guidebook*, and a MSDS, you shall establish scene control zones and implement public protective actions. Additionally, using provided emergency response and hazardous materials response equipment, establish emergency decontamination capability. You must conduct a safety briefing with response personnel and communicate with the public concerning protective actions. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The candidate will not be allowed to review the performance steps at the time of testing. The candidate must participate in at least two scenario evolutions.

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PREPARATION & EQUIPMENT

Emergency Response Guidebook
SDS and/or MSDS
Emergency response and hazardous materials response equipment
Incident action plan
Site safety plan

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Implementing the Planned Response
Establishing Scene Control Zones and Implementing Public Protective Actions
Skill #6

Candidate:_____ Date:_____

Academy: _____ Test Site: _____

HAZARDOUS MATERIALS OPERATIONS	TEST		RETEST	
Skill #6	**S**	**U**	**S**	**U**
Given two scenarios involving hazardous materials /WMD incidents, the operations level responder shall explain how to establish and maintain scene control, including control zones and emergency decontamination, and communications between responders and to the public by completing the following requirements: (1) Identify the procedures for establishing scene control through control zones. (2) Identify the criteria for determining the locations of the control zones at hazardous materials/WMD incidents. (3) Identify the basic techniques for the following protective actions at hazardous materials/WMD incidents: (a) Evacuation (b) Shelter-in-place (4) Demonstrate the ability to perform emergency decontamination. (5) Identify the items to be considered in a safety briefing prior to allowing personnel to work at the following: (a) Hazardous material incidents (b) Hazardous materials/WMD incidents involving criminal activities (6) Identify the procedures for ensuring coordinated communication between responders and to the public. (5.4.1)				
The candidate shall:	**S**	**U**	**S**	**U**

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a) Identify and establish scene control zones: • Hot zone • Warm zone • Cold zone				
b) Determine and implement appropriate public protective actions as necessary • Evacuation and/or shelter-in-place				
c) Establish emergency decontamination				
d) Using an incident action plan and a site safety plan, conduct a safety briefing				
e) Communicate information concerning public protective actions with the public				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

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_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____	_____	Overall Skill Sheet Score Pass ☐ Fail ☐
Certifying Examiner	Date	
_____	_____	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐
Re-Test Certifying Examiner	Date	

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Evaluating Progress
Communicating the Status of the Planned Response
Skill # 7

PERFORMANCE STANDARD **Section 602**

NFPA 472, 2013 edition, 5.5.2 (1), (2) **Operations**

OBJECTIVE

Given two scenarios involving hazardous materials/WMD incidents, including the incident action plan, the operations level responder shall report the status of the planned response through the normal chain of command by completing the following requirements:

(1) Identify the procedures for reporting the status of the planned response through the normal chain of command.
(2) Identify the methods for immediate notification of the incident commander and other response personnel about critical emergency conditions at the incident.

INSTRUCTIONS - procedures for achieving the objective
Given scenarios involving hazardous materials/WMD incidents, including the incident action plan; you shall communicate the status of the planned response through the normal chain of command and identify the methods for immediate notification of the incident commander and other response personnel about critical emergency conditions at the incident. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The candidate will not be allowed to review the performance steps at the time of testing. The candidate must participate in at least two scenario evolutions.

PREPARATION & EQUIPMENT
Hazardous materials incident scenarios
Standard Operating Procedures per AHJ

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations
Performance Standards

Evaluating Progress
Communicating the Status of the Planned Response
Skill #7

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS	TEST		RETEST	
Skill #7	**S**	**U**	**S**	**U**
Given two scenarios involving hazardous materials/WMD incidents, including the incident action plan, the operations level responder shall report the status of the planned response through the normal chain of command by completing the following requirements: (1) Identify the procedures for reporting the status of the planned response through the normal chain of command. (2) Identify the methods for immediate notification of the incident commander and other response personnel about critical emergency conditions at the incident. (5.5.2)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Verbally identify the methods for communicating the status of the planned response to the incident commander through the normal chain of command				
b) Verbally identify the methods for immediate notification of the incident commander and other response personnel about critical emergency conditions at the incident				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:
_____

_____

_____

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_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations – Mission Specific Competencies
Performance Standards

Implementing the Planned Response
PPE: Donning, Working in, and Doffing Personal Protective Equipment
Skill #1

PERFORMANCE STANDARD **Section 603**

NFPA 472, 2013 edition, 6.2.1.2(1), (3); 6.2.4.1(1), (2), (3), (5); 6.2.5.1 **Operations-Mission Specific (PPE)**

OBJECTIVE

6.2.1.2 The goal of the competencies in this section shall be to provide the operations level responder assigned to use personal protective equipment with the knowledge and skills to perform the following tasks safely and effectively:

(1) Plan a response within the capabilities of personal protective equipment provided by the AHJ in order to perform mission specific tasks assigned.
(3) Terminate the incident by completing the reports and documentation pertaining to personal protective equipment.

6.2.4.1 Given the personal protective equipment provided by the AHJ, the operations level responder assigned to use personal protective equipment shall demonstrate the ability to don, work in, and doff the equipment provided to support mission-specific tasks by completing the following requirements:

(1) Describe at least three safety procedures for personnel wearing protective clothing.
(2) Describe at least three emergency procedures for personnel wearing protective clothing.
(3) Demonstrate the ability to don, work in, and doff personal protective equipment provided by the AHJ.
(5) Describe the maintenance, testing, inspection, storage, and documentation procedures for personal protective equipment provided by the AHJ according to the manufacturer's specifications and recommendations.

6.2.5.1 Given a scenario involving a hazardous materials/WMD incident, the operations level responder assigned to use personal protective equipment shall document use of the personal protective equipment by completing the documentation requirements of the emergency response plan or standard operating procedures regarding personal protective equipment.

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INSTRUCTIONS - procedures for achieving the objective
Given a scenario and personal protective equipment provided by the AHJ, you shall perform the following tasks:

(1) Plan a response in order to perform the mission-specific tasks assigned in the scenario.
(2) Describe at least three safety procedures for personnel wearing protective clothing.
(3) Describe at least three emergency procedures for personnel wearing protective clothing.
(4) Demonstrate the ability to don, work in, and doff personal protective equipment provided by the AHJ.
(5) Describe the maintenance, testing, inspection, storage, and documentation procedures for personal protective equipment provided by the AHJ according to the manufacturer's specifications and recommendations.
(6) Terminate the incident by completing the reports and documentation pertaining to PPE.

You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
If this skill is selected as a designated testing skill by TCFP, one of the following options will be assigned:

- Level A chemical protective clothing ensemble*
- Level B chemical protective clothing ensemble
- Level C chemical protective clothing ensemble

Only the portions of the steps appropriate for the designated ensemble will be evaluated.

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

*If the Level A version of this skill is selected and the AHJ doesn't utilize Level A ensembles, then the candidate must be tested using a Level B ensemble.

PREPARATION & EQUIPMENT
Scenario
Personal protective equipment provided by the AHJ
Structural firefighter protective clothing:
<u>Level A chemical protective clothing</u> must include the following items at a minimum:

- A fully encapsulating vapor protective garment

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- Positive pressure SCBA
- Chemical protective boots
- Chemical protective gloves
- Hard hat

Level B chemical protective clothing must include the following items at a minimum:

- Either a fully encapsulating splash protective garment or a non-encapsulating splash protective garment – all clothing must be taped over.
- Positive pressure SCBA
- Chemical protective boots
- Chemical protective gloves
- Hard hat

Level C chemical protective clothing must include the following items at a minimum:

- Either a non-encapsulating splash protective garment or a complete set of structural firefighter protective clothing with wrist and ankle cuffs taped to their gloves and boots
- An air purifying respirator, a powered air purifying respirator, or an SCBA mask with an APR cartridge adapter
- Chemical protective boots
- Chemical protective gloves
- Hard hat

Splash protective chemical clothing/equipment
Vapor protective clothing/equipment (AHJ)
Positive pressure self contained breathing apparatus
Air purifying respirators (AHJ)
Supplied air respirators (AHJ)
Reports and documentation related to maintenance, testing, inspection and storage of PPE (AHJ)

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations – Mission Specific Competencies
Performance Standards

Implementing the Planned Response
PPE: Donning, Working in, and Doffing Personal Protective Equipment
Skill #1

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS MISSION SPECIFIC COMPETENCIES	TEST		RETEST	
Skill #1	**S**	**U**	**S**	**U**
The goal of the competencies in this section shall be to provide the operations level responder assigned to use personal protective equipment with the knowledge and skills to perform the following tasks safely and effectively: (1) Plan a response within the capabilities of personal protective equipment provided by the AHJ in order to perform mission specific tasks assigned. (3) Terminate the incident by completing the reports and documentation pertaining to personal protective equipment (6.2.1.2) Given the personal protective equipment provided by the AHJ, the operations level responder assigned to use personal protective equipment shall demonstrate the ability to don, work in, and doff the equipment provided to support mission-specific tasks by completing the following requirements: (1) Describe at least three safety procedures for personnel wearing protective clothing. (2) Describe at least three emergency procedures for personnel wearing protective clothing. (3) Demonstrate the ability to don, work in, and doff personal protective equipment provided by the AHJ. (5) Describe the maintenance, testing, inspection, storage, and documentation procedures for personal protective equipment provided by the AHJ according to the manufacturer's specifications and recommendations. (6.2.4.1)				

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations – Mission Specific Competencies
Performance Standards

Given a scenario involving a hazardous materials/WMD incident, the operations level responder assigned to use personal protective equipment shall document use of the personal protective equipment by completing the documentation requirements of the emergency response plan or standard operating procedures regarding personal protective equipment. (6.2.5.1)				
	S	**U**	**S**	**U**
a) Plan an effective response utilizing appropriate PPE				
b) Describe at least three safety procedures for personnel wearing chemical protective clothing.				
c) Describe at least three emergency procedures for personnel wearing chemical protective clothing.				
d) Demonstrate the ability to don, work in, and doff personal protective equipment provided by the AHJ.				
• Level A chemical protective clothing ensemble (if applicable, per AHJ); or				
• Level B chemical protective clothing ensemble; or				
• Level C chemical protective clothing ensemble				
e) Describe the maintenance, testing, inspection, storage, and documentation procedures for personal protective equipment provided by the AHJ according to the manufacturer's specifications and recommendations.				
f) Terminate the incident by identifying and completing the reporting and documentation requirements consistent with the emergency response plan or standard operating procedures regarding personal protective equipment.				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations – Mission Specific Competencies
Performance Standards

Implementing the Planned Response
PPE: Decontamination Procedures
Skill #2

PERFORMANCE STANDARD **Section 603**

NFPA 472, 2013 edition, 6.2.1.2(2); 6.2.1.4(4); 6.6.4.2 **Operations-Mission Specific (PPE)**

OBJECTIVE
6.2.1.2 The goal of the competencies in this section shall be to provide the operations level responder assigned to use personal protective equipment with the knowledge and skills to perform the following tasks safely and effectively:

(2) Implement the planned response consistent with the standard operating procedures and site safety and control plan by donning, working in, and doffing personal protective equipment provided by the AHJ.

6.2.4.1 Given the personal protective equipment provided by the AHJ, the operations level responder assigned to use personal protective equipment shall demonstrate the ability to don, work in, and doff the equipment provided to support mission-specific tasks by completing the following requirements:

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

6.6.4.2 The operations level responder assigned to perform product control shall describe local procedures for going through the technical decontamination process.

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

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

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PREPARATION & EQUIPMENT

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

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations – Mission Specific Competencies
Performance Standards

Implementing the Planned Response
PPE: Decontamination Procedures
Skill #2

Candidate:_____ Date: _____

Academy: _____ Test Site: _____

HAZARDOUS MATERIALS OPERATIONS MISSION SPECIFIC COMPETENCIES	TEST		RETEST	
Skill #2	**S**	**U**	**S**	**U**
The goal of the competencies in this section shall be to provide the operations level responder assigned to use personal protective equipment with the knowledge and skills to perform the following tasks safely and effectively: (2) Implement the planned response consistent with the standard operating procedures and site safety and control plan by donning, working in, and doffing personal protective equipment provided by the AHJ. (6.2.1.2) Given the personal protective equipment provided by the AHJ, the operations level responder assigned to use personal protective equipment shall demonstrate the ability to don, work in, and doff the equipment provided to support mission-specific tasks by completing the following requirements: (4) Demonstrate local procedures for responders undergoing the technical decontamination process. (6.2.4.1) The Operations level responder assigned to perform product control shall describe local procedures for going through the technical decontamination process. (6.6.4.2)				
Based on the given scenario, the candidate shall:	**S**	**U**	**S**	**U**
a) Select the appropriate decontamination protocol				
b) Properly set up a decontamination corridor				

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c) Select the appropriate PPE/CPC for the decontamination team				
d) Conduct the technical decontamination process				
e) Maintain proper safety control measures at all times				
f) Implement local policies and procedures per AHJ				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations – Mission Specific Competencies
Performance Standards

Planning the Response
Product Control: Identifying Options
Skill #3

PERFORMANCE STANDARD **Section 603**

NFPA 472, 2013 edition, 6.6.3.1(1), (2); 6.6.1.2.2(1) **Operations-Mission Specific (Prod. Ctrl.)**

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

(1) Identify the options to accomplish a given response objective.
(2) Identify the purpose for and the procedures, equipment, and safety precautions associated with each of the following control techniques:
    (a) Absorption
    (b) Adsorption
    (c) Damming
    (d) Diking
    (e) Dilution
    (f) Diversion
    (g) Remote valve shutoff
    (h) Retention
    (i) Vapor dispersion
    (j) Vapor suppression

When responding to hazardous materials/WMD incidents, the operations level responder assigned to perform product control shall be able to perform the following tasks:

(1) Plan an initial response within the capabilities and competencies of available personnel, personal protective equipment, and control equipment and in accordance with the emergency response plan or standard operating procedures by completing the following tasks:
    (a) Describe the control options available to the operations level responder.
    (b) Describe the control options available for flammable liquid and flammable gas incidents.

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INSTRUCTIONS - procedures for achieving the objective
I will give you examples of hazardous materials/WMD incidents; you shall identify the options for product control for each response objective according to the following requirements as prescribed by the AHJ:

(1) Identify the options to accomplish a given response objective.
(2) Identify the purpose for and the procedures, equipment, and safety precautions associated with each of the following control techniques:
    (a) Absorption
    (b) Adsorption
    (c) Damming
    (d) Diking
    (e) Dilution
    (f) Diversion
    (g) Remote valve shutoff
    (h) Retention
    (i) Vapor dispersion
    (j) Vapor suppression

(3) Plan an initial response within the capabilities and competencies of available personnel, personal protective equipment, and control equipment and in accordance with the emergency response plan or standard operating procedures by completing the following tasks:
    (a) Describe the control options available to the operations level responder.
    (b) Describe the control options available for flammable liquid and flammable gas incidents.

Given a hazardous materials incident scenario you will identify the most appropriate method or methods to safely control the release in a defensive fashion. Additionally, describe the procedures, equipment, and safety precautions required to perform those procedures. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
Hazardous materials incident scenarios

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations – Mission Specific Competencies
Performance Standards

Planning the Response
Product Control: Identifying Options
Skill #3

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS MISSION SPECIFIC COMPETENCIES	TEST		RETEST	
Skill #3	**S**	**U**	**S**	**U**
Given examples of hazardous materials/WMD incidents, the operations level responder assigned to perform product control shall identify the options for each response objective by completing the following requirements as prescribed by the AHJ: (1) Identify the options to accomplish a given response objective. (2) Identify the purpose for and the procedures, equipment, and safety precautions associated with each of the following control techniques: (a) Absorption (b) Adsorption (c) Damming (d) Diking (e) Dilution (f) Diversion (g) Remote valve shutoff (h) Retention (i) Vapor dispersion (j) Vapor suppression (6.6.3.1) When responding to hazardous materials/WMD incidents, the operations level responder assigned to perform product control shall be able to perform the following tasks: (3) Plan an initial response within the capabilities and competencies of available personnel, personal protective equipment, and control equipment and in accordance with the emergency response plan or standard operating procedures by completing the				

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following tasks: (a) Describe the control options available to the operations level responder. (b) Describe the control options available for flammable liquid and flammable gas incidents. (6.6.1.2.2)				
Based on the given scenario, the candidate shall:	**S**	**U**	**S**	**U**
a) Identify the most appropriate method or methods of product control				
b) Describe the procedures for implementing the method or methods of product control				
c) Identify the equipment required to implement the method or methods of product control				
d) Describe the safety precautions pertinent to implementing the method or methods of product control				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations- Mission Specific Competencies
Performance Standards

Implementing the Planned Response
Product Control: Foam Operations
Skill # 4

PERFORMANCE STANDARD **Section 603**

NFPA 472, 2013 edition, 6.6.4.1(1), (2) **Operations-Mission Specific (Prod. Ctrl.)**

OBJECTIVE

Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ:

(1) Using the type of special purpose or hazard suppressing foams or agents and foam equipment furnished by the AHJ, demonstrate the application of the foam(s) or agent(s) on a spill or fire involving hazardous materials/WMD.
(2) Identify the characteristics and applicability of the following Class B foams if supplied by the AHJ:
    (a) Aqueous film-forming foam (AFFF)
    (b) Alcohol-resistant concentrates
    (c) Fluoroprotein
    (d) High-expansion foam

INSTRUCTIONS - procedures for achieving the objective
Given firefighting foam or training foam and foam generating equipment, develop and apply firefighting foam or foam agents to a spill or fire involving hazardous materials. You will be operating as part of a team and be responsible for maintaining a safe operational environment at all times. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
Firefighting foam or training foam provided by the AHJ
Foam agents (i.e. Microblaze) provided by the AHJ if applicable
Foam generation equipment (i.e. pumping apparatus, hose, foam eductors, nozzles, expansion tubes, etc.)

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TEXAS COMMISSION ON FIRE PROTECTION

Hazardous Materials Operations- Mission Specific Competencies

Performance Standards

Implementing the Planned Response

Product Control: Foam Operations

Skill # 4

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS MISSION SPECIFIC COMPETENCIES	TEST		RETEST	
Skill #4	**S**	**U**	**S**	**U**
Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ: (1) Using the type of special purpose or hazard suppressing foams or agents and foam equipment furnished by the AHJ, demonstrate the application of the foam(s) or agent(s) on a spill or fire involving hazardous materials/WMD. (2) Identify the characteristics and applicability of the following Class B foams if supplied by the AHJ: (a) Aqueous film-forming foam (AFFF) (b) Alcohol-resistant concentrates (c) Fluoroprotein (d) High-expansion foam (6.6.4.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Select the foam or agent to be applied and describe why the selection is the most appropriate				
b) Select the appropriate foam generating tools and equipment to generate foam streams				
c) Properly assemble the foam agent, tools, and equipment to generate foam streams				
d) Generate and apply foam streams				
e) Operate as part of a team				
f) Maintains safe operating environment				

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations- Mission Specific Competencies
Performance Standards

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations - Mission Specific Competencies
Performance Standards

Implementing the Planned Response
Product Control: Implementing Product Control Procedures
Skill #5

PERFORMANCE STANDARD **Section 603**

NFPA 472, 2013 edition, 6.6.4.1(3) **Operations-Mission Specific (Prod. Ctrl.)**

OBJECTIVE
Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ:

(3) Given the required tools and equipment, demonstrate how to perform the following control activities:
- (a) Absorption
- (b) Adsorption
- (c) Damming
- (d) Diking
- (e) Dilution
- (f) Diversion
- (g) Retention
- (h) Remote valve shutoff
- (i) Vapor dispersion
- (j) Vapor suppression

INSTRUCTIONS - procedures for achieving the objective
Given a scenario and various tools and equipment, select and implement the most appropriate product control method based on the identified response objectives. You will be provided with tools and equipment and a team of responders to assist in implementing the product control method. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT

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Hazardous materials incident scenario
Hazardous materials tools and equipment as supplied by the AHJ for implementation of hazardous materials product control measures.

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations - Mission Specific Competencies
Performance Standards

Implementing the Planned Response
Product Control: Implementing Product Control Procedures
Skill #5

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS MISSION SPECIFIC COMPETENCIES	TEST		RETEST	
Skill #5	**S**	**U**	**S**	**U**
Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ: (3) Given the required tools and equipment, demonstrate how to perform the following control activities: (a) Absorption (b) Adsorption (c) Damming (d) Diking (e) Dilution (f) Diversion (g) Retention (h) Remote valve shutoff (i) Vapor dispersion (j) Vapor suppression (6.6.4.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Identify the appropriate product control method(s)				
b) Select the appropriate tools and equipment required				
c) Implement the appropriate product control method(s)				
d) Operates as part of a team				
e) Utilize standard safety practices				

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations - Mission Specific Competencies
Performance Standards

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations - Mission Specific Competencies
Performance Standards

Implementing the Planned Response
Product Control: Remote Shut-off of Highway Cargo Tanks
Skill #6

PERFORMANCE STANDARD **Section 603**

NFPA 472, 2013 edition, 6.6.4.1(4) **Operations-Mission Specific (Prod. Ctrl.)**

OBJECTIVE

Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ:

(4) Identify the location and describe the use of emergency remote shutoff devices on MC/DOT-306/406, MC/DOT-307/407, and MC-331 cargo tanks containing flammable liquids or gases.

INSTRUCTIONS - procedures for achieving the objective
Given diagrams or images of MC-306/DOT-406, MC-307/DOT-407 and MC-331 cargo tanks you shall identify the location and describe the use of the mechanical, hydraulic, and air emergency remote shutoff devices on each of the cargo tanks. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
Images or diagrams of:
1. MC-306/DOT-406 (Nonpressure) cargo tanks and remote shut-off devices
2. MC-307/DOT-407 (Low pressure) cargo tanks and remote shut-off devices
3. MC-331 (High pressure) cargo tanks and remote shut-off devices

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations - Mission Specific Competencies
Performance Standards

Implementing the Planned Response
Product Control: Remote Shut-off of Highway Cargo Tanks
Skill #6

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS MISSION SPECIFIC COMPETENCIES	TEST		RETEST	
Skill #6	**S**	**U**	**S**	**U**
Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ: (4) Identify the location and describe the use of emergency remote shutoff devices on MC/DOT-306/406, MC/DOT-307/407, and MC-331 cargo tanks containing flammable liquids or gases. (6.6.4.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Identify the location of remote shut-off devices on MC-306/DOT-406 (Nonpressure) cargo tanks				
b) Identify the location of remote shut-off devices on MC-307/DOT-407 (Low pressure) cargo tanks				
c) Identify the location of remote shut-off devices on MC-331 (High pressure) cargo tanks				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:
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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations - Mission Specific Competencies
Performance Standards

Implementing the Planned Response
Product Control: Remote Shut-off Devices at Fixed Facilities
Skill #7

PERFORMANCE STANDARD **Section 603**

NFPA 472, 2013 edition, 6.6.4.1(5) **Operations-Mission Specific (Prod. Ctrl.)**

OBJECTIVE
Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ:

(5) Describe the use of emergency remote shutoff devices at fixed facilities.

INSTRUCTIONS - procedures for achieving the objective
Given a diagram of a fixed facility remote shut-off device, describe its operation and use. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

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

PREPARATION & EQUIPMENT
Diagrams or images of fixed facility remote shut-off devices

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TEXAS COMMISSION ON FIRE PROTECTION
Hazardous Materials Operations - Mission Specific Competencies
Performance Standards

Implementing the Planned Response
Product Control: Remote Shut-off Devices at Fixed Facilities
Skill #7

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS OPERATIONS MISSION SPECIFIC COMPETENCIES	TEST		RETEST	
Skill #7	**S**	**U**	**S**	**U**
Given an incident action plan for a hazardous materials/WMD incident, within the capabilities and equipment provided by the AHJ, the operations level responder assigned to perform product control shall demonstrate control functions set out in the plan by completing the following requirements as prescribed by the AHJ: (5) Describe the use of emergency remote shutoff devices at fixed facilities. (6.6.4.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Identify fixed facility remote shut-off device				
b) Describe fixed facility remote shut-off device operation				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Containers Identification
Skill #1

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.2.1 **TECHNICIAN**

OBJECTIVE
Given examples of various containers for hazardous materials/WMD, the hazardous materials technician shall identify each container by name and specification and identify the typical contents by name and hazard class.

Given examples of the following railroad cars, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class:
- (1) Cryogenic liquid tank cars
- (2) Nonpressure tank cars
- (3) Pneumatically unloaded hopper cars
- (4) Pressure tank cars

Given examples of the following intermodal tanks, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class:
- (1) Nonpressure intermodal tanks
  - (a) IM-101 portable tanks (IMO Type 1 internationally)
  - (b) IM-102 portable tanks (IMO Type 2 internationally)
- (2) Pressure intermodal tank (IMO Type 5 internationally)
- (3) Specialized intermodal tanks
  - (a) Cryogenic intermodal tanks (IMO Type 7 internationally)
  - (b) Tube modules

Given examples of the following cargo tanks, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class:
- (1) Compressed gas tube trailers
- (2) Corrosive liquid tanks
- (3) Cryogenic liquid tanks
- (4) Dry bulk cargo tanks
- (5) High-pressure tanks
- (6) Low-pressure chemical tanks
- (7) Nonpressure liquid tanks

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Given examples of the following facility storage tanks, the hazardous materials technician shall identify the container by name and identify the typical contents by name and hazard class:

(1) Cryogenic liquid tank
(2) Nonpressure tank
(3) Pressure tank

Given examples of the following nonbulk packaging, the hazardous materials technician shall identify the package by name and identify the typical contents by name and hazard class:

(1) Bags
(2) Carboys
(3) Cylinders
(4) Drums

Given examples of the following radioactive materials packages, the hazardous materials technician shall identify the container/package by name and identify the typical contents by name:

(1) Excepted
(2) Industrial
(3) Type A
(4) Type B
(5) Type C

Given examples of the following packaging, the operations level responder shall identify the characteristics of each container or package by type as follows:

(1) Intermediate bulk container (IBC)
(2) Ton container

Given examples of three facility and three transportation containers, the hazardous materials technician shall identify the approximate capacity of each container.

Using the markings on the container, the hazardous materials technician shall identify the capacity (by weight or volume) of the following examples of transportation vehicles:

(1) Cargo tanks
(2) Tank cars
(3) Tank containers

Using the markings on the container and other available resources, the hazardous materials technician shall identify the capacity (by weight or volume) of each of the following facility containers:

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(1) Cryogenic liquid tank
(2) Nonpressure tank (general service or low-pressure tank)
(3) Pressure tank

INSTRUCTIONS - procedures for achieving the objective
Given a worksheet or audio/visual presentation you shall identify the name of, type, capacity, and typical contents of each container represented. You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
A worksheet or audio/visual presentation (i.e. PowerPoint Presentation) or an instructor prepared worksheet.

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Containers Identification
Skill #1

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #1	**S**	**U**	**S**	**U**
Given examples of various containers for hazardous materials/WMD, the hazardous materials technician shall identify each container by name and specification and identify the typical contents by name and hazard class. Given examples of the following railroad cars, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class: (1) Cryogenic liquid tank cars (2) Nonpressure tank cars (3) Pneumatically unloaded hopper cars (4) Pressure tank cars Given examples of the following intermodal tanks, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class: (1) Nonpressure intermodal tanks (a) IM-101 portable tanks (IMO Type 1 internationally) (b) IM-102 portable tanks (IMO Type 2 internationally) (2) Pressure intermodal tank (DOT Specification 51; IMO Type 5 internationally) (3) Specialized intermodal tanks (a) Cryogenic intermodal tanks (IMO Type 7 internationally) (b) Tube modules				

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Given examples of the following cargo tanks, the hazardous materials technician shall identify the container by name and specification and identify the typical contents by name and hazard class: (1) Compressed gas tube trailers (2) Corrosive liquid tanks (3) Cryogenic liquid tanks (4) Dry bulk cargo tanks (5) High-pressure tanks (6) Low-pressure chemical tanks (7) Nonpressure liquid tanks Given examples of the following facility storage tanks, the hazardous materials technician shall identify the container by name and identify the typical contents by name and hazard class: (1) Cryogenic liquid tank (2) Nonpressure tank (3) Pressure tank Given examples of the following nonbulk packaging, the hazardous materials technician shall identify the package by name and identify the typical contents by name and hazard class: (1) Bags (2) Carboys (3) Cylinders (4) Drums Given examples of the following radioactive materials packages, the hazardous materials technician shall identify the container/package by name and identify the typical contents by name: (1) Excepted (2) Industrial (3) Type A (4) Type B (5) Type C Given examples of the following packaging, the hazardous materials technician shall identify the package by name and identify the typical contents by name and hazard class:				

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(1) Intermediate bulk container (IBC) (2) Ton container Given examples of three facility and three transportation containers, the hazardous materials technician shall identify the approximate capacity of each container. Using the markings on the container, the hazardous materials technician shall identify the capacity (by weight or volume) of the following examples of transportation vehicles: (1) Cargo tanks (2) Tank cars (3) Tank containers Using the markings on the container and other available resources, the hazardous materials technician shall identify the capacity (by weight or volume) of each of the following facility containers: (1) Cryogenic liquid tank (2) Nonpressure tank (general service or low-pressure tank) (3) Pressure tank (7.2.1)				
The candidate shall:	**S**	**U**	**S**	**U**
<u>Railroad Cars</u> 1. Identify the railcar examples provided 2. Identify the approximate capacity of the railcar examples 3. Identify a material(s) and hazard class(s) commonly transported in the railcar examples				
<u>Intermodal</u> 1. Identify the intermodal container examples provided 2. Identify the approximate capacity of the container examples 3. Identify a material(s) and hazard class(s) commonly transported in the container examples				
<u>Cargo Tank</u> 1. Identify the Highway Cargo Tanks provided 2. Identify the approximate capacity of the cargo tank examples 3. Identify a material(s) and hazard class(s) commonly transported in the cargo tank examples				

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Fixed Facility 1. Identify the fixed facility storage tanks provided 2. Identify a material(s) and hazard class(s) commonly stored in the storage tank examples				
Non-Bulk Packaging 1. Identify the nonbulk container packaging provided 2. Identify the approximate capacity of the nonbulk container packaging 3. Identify a material(s) and hazard class(s) commonly transported in the nonbulk container packaging examples				
Radioactive Materials Packaging 1. Identify the Radioactive Materials packaging provided 2. Identifies a material(s) commonly transported in the Radioactive Materials packaging				
Intermediate Bulk and Ton Containers 1. Identify intermediate bulk and/or ton containers 2. Identify the materials commonly transported in the container examples				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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Technician
Container Identification Worksheet

RAILCAR TANK				
	Container Name	Container Capacity	Common Materials	Common Hazard Classes
1				
2				
3				
4				
5				
INTERMODAL TANK				
	Container Name/Spec.	Container Capacity	Common Materials	Common Hazard Classes
1				
2				
3				
4				
5				
HIGHWAY CARGO TANK				
	Container Name/Spec.	Container Capacity	Common Materials	Common Hazard Classes
1				
2				
3				
4				
5				
6				
7				
NON-BULK CONTAINER PACKAGING				
	Container Name	Container Capacity	Common Materials	Common Hazard Classes
1				
2				
3				
4				
5				

Intermediate Bulk Containers & Ton Containers		
	Container Name	Typical Contents
1		
2		
3		

FIXED FACILITY STORAGE TANK		
	Container Name	Typical Contents
1		
2		
3		

RADIOACTIVE MATERIAL PACKAGING		
	Container Name	Typical Contents
1		
2		
3		
4		
5		

TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Sampling and Monitoring/Surveying Equipment
Skill #2

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.2.1.3, 7.2.1.3.5, 7.2.1.5 **TECHNICIAN**

OBJECTIVE
Given at least three unknown materials/WMD, one of which is a solid, one a liquid, and one a gas, the hazardous materials technician shall identify or classify by hazard each unknown material.

Given three hazardous materials/WMD, one of which is a solid, one a liquid, and one a gas, and using equipment, test strips, and reagents, provided by the AHJ as applicable, 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):

(1) Carbon monoxide meter
(2) Colorimetric tubes
(3) Combustible gas indicator
(4) Oxygen meter
(5) Passive dosimeters
(6) pH indicators and/or pH meters
(7) Photoionization and flame ionization detectors
(8) Radiation detection instruments
(9) Reagents
(10) Test strips
(11) WMD detectors (chemical and biological)
(12) Other equipment provided by the AHJ

The hazardous materials technician shall demonstrate methods for collecting samples of the following:

(1) Gas
(2) Liquid
(3) Solid

INSTRUCTIONS - procedures for achieving the objective
Given a solid, a liquid, and a gas, you will demonstrate the appropriate method for collecting a sample for evaluation. You will select the appropriate type of monitoring equipment to classify or identify the material by using the instruments, reagents and test strips as provided by the AHJ. *(Example: if a sample is a liquid and has a pH of 2, it*

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would be an acid. If it also had a LEL of 12%, it would also be a flammable liquid). You will begin on my instruction to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE:
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

1. Carbon monoxide meter*
2. Oxygen meter*
3. Combustible gas indicator*
4. Gas specific meters (AHJ)
5. Photoionization detector
6. Colorimetric tubes and pump
7. pH paper or electronic pH meter
8. Radiation detection instruments
9. Reagents (AHJ)
10. Test strips (AHJ)
11. Other monitoring detection equipment as provided by AHJ
12. Samples of hazardous materials (liquids, gases, and solids)
13. Sampling equipment (i.e. pipettes, spatulas, jars, vials, etc.)

*These can be single gas monitors or multi-gas monitors

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Sampling and Monitoring/Surveying Equipment
Skill #2

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #2	**S**	**U**	**S**	**U**
Given at least three unknown materials/WMD, one of which is a solid, one a liquid, and one a gas, the hazardous materials technician shall identify or classify by hazard each unknown material. Given three hazardous materials/WMD, one of which is a solid, one a liquid, and one a gas, and using equipment, test strips, and reagents, provided by the AHJ as applicable, 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): (1) Carbon monoxide meter (2) Colorimetric tubes (3) Combustible gas indicator (4) Oxygen meter (5) Passive dosimeters (6) pH indicators and/or pH meters (7) Photoionization and flame ionization detectors (8) Radiation detection instruments (9) Reagents (10) Test strips (11) WMD detectors (chemical and biological) (12) Other equipment provided by the AHJ The hazardous materials technician shall demonstrate methods for collecting samples of the following: (1) Gas (2) Liquid (3) Solid				

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

The candidate shall perform:	**S**	**U**	**S**	**U**
SAMPLE #1 (Liquid) 1. Appropriately collect sample of material.				
2. Choose the correct instrument or instruments to survey/test the sample. List instrument(s) chosen:_____				
3. Correctly classifies and/or identifies and quantifies the sample. Classification/identification of sample:_____ Quantified results:_____				
SAMPLE #2 (Solid) 1. Appropriately collect sample of material.				
2. Choose the correct instrument or instruments to survey/test the sample. List instrument(s) chosen:_____				
3. Correctly classifies and/or identifies and quantifies the sample. Classification/identification of sample:_____ Quantified results:_____				
SAMPLE #3 (Gas) 1. Appropriately collect sample of material.				
2. Choose the correct instrument or instruments to survey/test the sample. List instrument(s) chosen:_____				
3. Correctly classifies and/or identifies and quantifies the sample.				

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Classification/identification of sample:_____ Quantified results:_____				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Monitoring/Surveying/Detection Equipment Maintenance and Use
Skill #3

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.2.1.3.6 **TECHNICIAN**

OBJECTIVE
Given monitoring equipment, test strips, and reagents provided by the AHJ, the hazardous materials technician shall demonstrate the field maintenance and testing procedures for those items.

INSTRUCTIONS - Procedures for achieving the objective
Given various monitoring, surveying and detection instruments/equipment, you will demonstrate the procedures for calibrating the instruments or verifying their calibration. You will also demonstrate how to use each instrument or type of test equipment provided. You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
1. Carbon monoxide monitor*
2. Combustible gas indicator*
3. Oxygen monitor*
4. Gas specific monitors
5. Photoionization detector
6. Colorimetric tubes
7. Radiation survey equipment
8. Radiation dosimeters
9. pH papers/pH meters
10. Test strips
11. Reagents
12. Equipment to calibrate or verify calibration
13. Other instruments/equipment provided by AHJ

***These may be single gas or multi-gas monitors**

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Monitoring/Surveying/Detection Equipment Maintenance and Use
Skill #3

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #3	**S**	**U**	**S**	**U**
Given monitoring equipment, test strips, and reagents provided by the AHJ, the hazardous materials technician shall demonstrate the field maintenance and testing procedures for those items. (7.2.1.3.6)				
The candidate shall perform:	**S**	**U**	**S**	**U**
1. Oxygen monitor a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration b) Demonstrate proper use of the device				
2. Combustible Gas Indicator a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration b) Demonstrate proper use of the device				
3. Carbon monoxide monitor a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration b) Demonstrate proper use of the device				
4. Gas specific monitor (i.e. hydrogen sulfide detector) a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration b) Demonstrate proper use of the device				
5. Radiation survey instrument (i.e. Ludlum 2241-2 or CDV700 or CDV715) a) In accordance with the manufacturer's instructions, calibrates monitor or verifies				

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calibration b) Demonstrate proper use of the device				
6. Radiation dosimeter a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration b) Demonstrate proper use of the device				
7. pH paper and/or pH meter a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration (for pH meter only) b) Demonstrate proper use of the device				
8. Colorimetric tubes/devices (i.e. Drager tubes) a) Use in accordance with the manufacturer's instructions b) Demonstrate proper use of the device				
9. Test strips or reagents a) Use in accordance with the manufacturer's instructions b) Demonstrate proper use of the device				
10. Photoionization detector a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration b) Demonstrate proper use of the device				
11. Other monitoring, detection or survey equipment provided by the AHJ a) In accordance with the manufacturer's instructions, calibrates monitor or verifies calibration b) Demonstrate proper use of the device				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

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_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Determining the Integrity of a Container of Radioactive Material
Skill #4

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.2.3.5 **TECHNICIAN**

OBJECTIVE
Given a scenario involving radioactive materials, the hazardous materials technician, using available survey and monitoring equipment, shall determine if the integrity of any container has been breached.

INSTRUCTIONS - Procedures for achieving the objective
Given radiation monitoring, surveying and detection instruments/equipment, and a suspect package, you will demonstrate the procedure for surveying the package to determine if it has been breached. You will also provide an analysis of your surveying and monitoring actions. You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
1. Radiation survey equipment
2. Radiation dosimeters
3. A "suspect" package with or without a radiation source suitable for analysis

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Determining the Integrity of a Container of Radioactive Material
Skill #4

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #4	**S**	**U**	**S**	**U**
Given a scenario involving radioactive materials, the hazardous materials technician, using available survey and monitoring equipment, shall determine if the integrity of any container has been breached. (7.2.3.5)				
The candidate:	**S**	**U**	**S**	**U**
1. Selected the appropriate radiation survey instrument to perform the required task.				
2. In accordance with the manufacturer's instructions, placed the radiation survey device into operation.				
3. Properly surveyed the container.				
4. Correctly determined if the container has been breached or not.				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Collecting and Interpreting Hazard and Response Information
Skill #5

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.2.2; 7.2.2.4; 7.1.2.2(1)(e); 7.1.2.2(2)(e); 7.3.5.2 **TECHNICIAN**

OBJECTIVE
Given access to printed and technical resources, computer databases, and monitoring equipment, the hazardous materials technician shall collect and interpret hazard and response information not available from the current edition of the DOT *Emergency Response Guidebook* or an MSDS.

Given five hazardous materials/WMD scenarios and the associated reference materials, the hazardous materials technician shall identify the signs and symptoms of exposure to each material and the target organ effects of exposure to that material.

Additionally, the hazardous materials technician shall analyze a hazardous materials/WMD incident to determine the complexity of the problem and potential outcomes by estimating the size of an endangered area using computer modeling, monitoring equipment, or specialists in this field.

INSTRUCTIONS - procedures for achieving the objective
Given five hazardous materials incident/WMD scenarios, you will collect and interpret hazard and response information utilizing provided printed and technical reference resources, computer databases and monitoring results. You shall identify the signs and symptoms of exposure for each material identified and the target organ effects of an exposure to that material. You will also analyze the incident to determine the complexity of the problem and potential outcomes by estimating the size of an endangered area using computer modeling, monitoring equipment, or specialists in this field. Given the data provided and using the information you have interpreted, you will develop an incident site safety plan and complete a product data sheet. You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
If this skill is selected as a designated testing skill by TCFP, one of the following five options will be assigned:

Scenario A: Transportation emergency (railroad, highway or pipeline) – no fire

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Scenario B: Transportation emergency (railroad, highway or pipeline) – with fire
Scenario C: Industrial/commercial facility – no fire
Scenario D: Industrial/commercial facility – with fire
Scenario E: Radiation hazard

The program coordinator or lead instructor will be responsible for developing the above scenarios for evaluation purposes. The examinee shall be trained to, and be prepared to appropriately respond to any one of the scenarios as listed above. At the time of the examination, only one of the scenarios will be selected for examination purposes. The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

1. Various hazardous materials/WMD incident scenarios
2. Various hazardous materials printed reference text (see reference list and equipment list).
3. Various hazardous materials electronic databases as provided by AHJ (i.e. WISER and/or CAMEO)
4. Access to a computer modeling specialist (this may be simulated by role play or a prepared narrative inject.)
5. Chemical data worksheet
6. Site safety plan worksheet (i.e. ICS form 208HM)

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Collecting and Interpreting Hazard and Response Information
Skill #5

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #5	**S**	**U**	**S**	**U**
Given five hazardous materials/WMD scenarios and the associated reference materials, the hazardous materials technician shall identify the signs and symptoms of exposure to each material and the target organ effects of exposure to that material. 7.2.2, 7.2.2.4 The hazardous materials technician shall analyze a hazardous materials/WMD incident to determine the complexity of the problem and potential outcomes by estimating the size of an endangered area using computer modeling, monitoring equipment, or specialists in this field. 7.1.2.2(1)(e)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Uses a minimum of three reference sources				
b) Identifies signs and symptoms of exposure				
c) Identifies target organs affected				
d) Complete a chemical data worksheet for each chemical identified				
e) Using all data collected, complete a site safety plan*				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

***At a minimum, the site safety plan should include the following information:**
1. Maximum exposure limits
2. Identifies hazards or conditions present
3. Level of PPE needed
4. Hazardous substance safe handling procedures
5. Identifies the need for a site map
6. Use of the “buddy system”

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7. Backup personnel
8. Medical support
9. Safety officer
10. Decontamination procedures
11. Hazard monitoring
12. Control zones

Evaluator/Candidate Comments:

_____

_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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Chemical Data Worksheet

Chemical Name:				Date
Synonym/Trade Names:				DOT UN #
Physical Description:				CAS #
Molecular Formula:		Molecular Weight:		Structure:
Physical, Chemical and Toxicological Properties				
	Source #1	Source #2	Source #3	Source #4
Reference Source				
Page #				
Physical Properties				
Physical State/Form				
Molecular Weight				
Boiling Point				
Melting Point				
Freezing Point				
Specific Gravity				
Solubility				
Flash Point				
Ignition Temp.				
Flammable Limits (UEL/LEL)				
Ionization Potential				
Vapor Density				
Vapor Pressure				
Other				
Chemical Properties				
Reactivities/Incompatibilities				
Corrosively (pH)				
Fire/Spill/Release Rec.				
Other				
Toxicological Properties				
TLV-TWA, -C, -STEL				
PEL or REL				
IDLH				
LD_{50}, LC_{50}				
Radioactivity				
Carcinogen/Mutagen/Teratogen				
Routes of Entry				
Target Organs/ Signs & Symptoms				
First Aid				
Toxic Products of Combustion				
PPE/CPC Recommendations				
Respiratory Protection				

TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Identifying Areas of Concern for Public Protective Actions
Skill #6

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.2.5.4 **TECHNICIAN**

OBJECTIVE
Given three examples involving a hazardous materials/WMD release and the corresponding instrument monitoring readings, the hazardous materials technician shall determine the applicable public protective response options and the areas to be protected.

INSTRUCTIONS - procedures for achieving the objective
Given direct monitoring survey data and a map, you shall plot the coordinates of the readings on the map. After plotting the coordinates you will identify the area of greatest concern for implementing public protective actions. You shall also clearly determine the control zones (hot, warm, and cold) based on the information obtained if possible. The skill will end when you state or indicate to me that you have completed all the identified steps. You will begin on my instruction to start. Do you understand these instructions?

EXAMINER'S NOTE
If this skill is selected as a designated testing skill by TCFP, one of the following five options will be assigned:

Scenario A: Transportation emergency (railroad, highway or pipeline) – no fire
Scenario B: Transportation emergency (railroad, highway or pipeline) – with fire
Scenario C: Industrial/commercial facility – no fire
Scenario D: Industrial/commercial facility – with fire
Scenario E: Radiation hazard

The program coordinator or lead instructor will be responsible for developing the above scenarios for evaluation purposes. The examinee shall be trained to, and be prepared to appropriately respond to any one of the scenarios as listed above. At the time of the examination, only one of the scenarios will be selected for examination purposes. The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
- Hazardous materials/WMD incident scenarios/response monitoring data

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- Grid map of area surrounding incident site
- SDS and/or MSDS
- Various hazardous materials printed reference text (see reference list and equipment list)
- Various hazardous materials electronic databases as provided by AHJ (i.e. WISER and/or CAMEO)
- Pencils, ruler, protractor

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Analyzing the Incident
Identifying Areas of Concern for PPA
Skill #6

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #6	**S**	**U**	**S**	**U**
Given three examples involving a hazardous materials/WMD release and the corresponding instrument monitoring readings, the hazardous materials technician shall determine the applicable public protective response options and the areas to be protected. (7.2.5.4)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Properly plot instrumentation readings on a map based on the provided data				
b) Identify the area of concern for implementation of public protective actions				
c) If applicable, plot control zones for emergency response activities based on the data provided to include the: • Hot Zone • Warm Zone • Cold Zone				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

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_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Planning the Response
Identifying Response Objectives
Skill #7

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.3.1, 7.3.2 **TECHNICIAN**

OBJECTIVE
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall describe the response objectives for each problem.

Given an analysis of a hazardous materials/WMD incident, the hazardous materials technician shall be able to describe the steps for determining response objectives (defensive, offensive, and nonintervention).

Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall identify the possible response options (defensive, offensive, and nonintervention) by response objective for each problem.

The hazardous materials technician shall be able to identify the possible response options to accomplish a given response objective.

INSTRUCTIONS - Procedures for achieving the objective
Given at least two (2) simulated hazardous materials incidents, one a facility incident and one a transportation incident, the technician trainee shall:

1) Describe the response objectives for each incident,
2) Describe the steps for determining response objectives when given an analysis of an incident,
3) Identify the possible response options by response objective for each problem (defensive, offensive and nonintervention), including safety considerations.
4) Identify possible response options to accomplish a given response objective

You will begin on my instructions to start. When you indicate completion of your analysis and response planning, I will ask you a series of questions. The skill will end when you state or indicate to me that you have completed your verbal response to the questions asked. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing. When the examinee indicates completion of

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the preparation tasks, ask the evaluation questions given on page two of this document. In the appropriate column, record your evaluation of the examinee's responses as either satisfactory (S) or unsatisfactory (U).

PREPARATION & EQUIPMENT

1. Hazardous materials/WMD incident scenarios (at least one scenario each must involve a facility incident or a transportation-related incident).
2. One "Response Objective Analysis Form" for each simulated incident.

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Planning the Response
Identifying Response Objectives
Skill #7

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #7	**S**	**U**	**S**	**U**
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall describe the response objectives for each problem. Given an analysis of a hazardous materials/WMD incident, the hazardous materials technician shall be able to describe the steps for determining response objectives (defensive, offensive, and nonintervention). Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall identify the possible response options (defensive, offensive, and nonintervention) by response objective for each problem. The hazardous materials technician shall be able to identify the possible response options to accomplish a given response objective. (7.3.1, 7.3.2)				
The trainee shall describe for the transportation incident:	**S**	**U**	**S**	**U**
a) Would you describe for me the response objective(s) for this incident?				
b) Would you describe the steps taken to determine the response objectives?				
c) Will this be a defensive, offensive, or nonintervention response?				
d) What possible action items have you identified to accomplish each response objective, including safety considerations?				
e) What possible response options will be required to accomplish your given response objectives?				

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

The trainee shall describe for the facility incident:	S	U	S	U
a) Would you describe for me the response objective(s) for this incident?				
b) Would you describe the steps taken to determine the response objectives?				
c) Will this be a defensive, offensive, or nonintervention response?				
d) What possible action items have you identified to accomplish each response objective, including safety considerations?				
e) What possible response options will be required to accomplish your given response objectives?				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

HazMat Technician #7

Response Objective Analysis Form
(Examinee Worksheet)

This worksheet is provided to the **EXAMINEE** to assist in identifying the stage of the incident and appropriate response objectives. Record the possible action options to accomplish each identified response objective.

TYPE OF INCIDENT: FACILITY TRANSPORTATION

CONTAINMENT SYSTEM ID: _____ MATERIAL: _____

INCIDENT STAGE (EVENT SEQUENCE)

STRESS	BREACH	RELEASE	ENGULF	CONTACT	HARM

RESPONSE OBJECTIVES

CHANGE APPLIED STRESSES	CHANGE BREACH SIZE	CHANGE QUANTITY RELEASE	CHANGE DANGER ZONE SIZE	CHANGE EXPOSURES CONTACTED	CHANGE SEVERITY OF HARM

RESPONSE OPTIONS AND SAFETY CONSIDERATIONS

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HazMat Technician #7

Response Objective Analysis Form
(Examinee Worksheet)

This worksheet is provided to the **EXAMINEE** to assist in identifying the stage of the incident and appropriate response objectives. Record the possible action options to accomplish each identified response objective.

TYPE OF INCIDENT: FACILITY TRANSPORTATION

CONTAINMENT SYSTEM ID: _____ MATERIAL: _____

INCIDENT STAGE (EVENT SEQUENCE)

STRESS	BREACH	RELEASE	ENGULF	CONTACT	HARM

RESPONSE OBJECTIVES

CHANGE APPLIED STRESSES	CHANGE BREACH SIZE	CHANGE QUANTITY RELEASE	CHANGE DANGER ZONE SIZE	CHANGE EXPOSURES CONTACTED	CHANGE SEVERITY OF HARM

RESPONSE OPTIONS AND SAFETY CONSIDERATIONS

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Planning the Response
Selecting Chemical Protective Clothing
Skill #8

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.3.3, 7.3.3.4.6 **TECHNICIAN**

OBJECTIVE
Given scenarios of hazardous materials/WMD incidents with known and unknown hazardous materials/WMD, the hazardous materials technician shall determine the personal protective equipment for the response options specified in the incident action plan in each situation.

Given three examples of various hazardous materials, the hazardous materials technician shall determine the protective clothing construction materials for a given action option using chemical compatibility charts.

INSTRUCTIONS - procedures for achieving the objective
You will be provided the name of three hazardous materials, a selection of Chemical Protective Clothing (CPC), chemical compatibility charts and/or CPC Selection Guides, hazardous materials reference texts, and a CPC worksheet. Using the materials provided, determine the CPC compatibility with the hazardous materials, and identify the breakthrough time (in minutes). You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
1. A list of Hazardous Materials/WMD Agents
2. A list of CPC Material
3. CPC Chemical compatibility charts
4. CPC Selection Guide(s)
5. Hazardous Materials reference texts
6. CPC Worksheets

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Planning the Response
Selecting Chemical Protective Clothing
Skill #8

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #8	**S**	**U**	**S**	**U**
Given scenarios of hazardous materials/WMD incidents with known and unknown hazardous materials/WMD, the hazardous materials technician shall determine the personal protective equipment for the response options specified in the incident action plan. (7.3.3) Given three examples of various hazardous materials, the hazardous materials technician shall determine the protective clothing construction materials for a given action option using chemical compatibility charts. (7.3.3.4.6)				
The candidate shall:	**S**	**U**	**S**	**U**
1. Chemical #1 Name _____ a. Identifies breakthrough time (in minutes) b. Determined best CPC compatibility				
2. Chemical #2 Name _____ a. Identifies breakthrough time (in minutes) b. Determined best CPC compatibility				
3. Chemical #3 Name _____ a. Identifies breakthrough time (in minutes) b. Determined best CPC compatibility				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:
_____

_____

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_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Chemical Protective Clothing Selection Worksheet

Name: _____
Date:_____

Hazardous Material/WMD	CPC Materials/Garment	CPC Breakthrough Time in Min.	CPC Selected for Use (Yes or No)
#1: _____	1.	Min.	
	2.	Min.	
	3.	Min.	
#2: _____	1.	Min.	
	2.	Min.	
	3.	Min.	
#3: _____	1.	Min.	
	2.	Min.	
	3.	Min.	

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Name: _____

Date:_____

Chemical Protective Clothing Selection Worksheet

Hazardous Material/WMD	CPC Materials/Garment	CPC Breakthrough Time in Min.	CPC Selected for Use (Yes or No)
#1: _____	1.	Min.	
	2.	Min.	
	3.	Min.	
#2: _____	1.	Min.	
	2.	Min.	
	3.	Min.	
#3: _____	1.	Min.	
	2.	Min.	
	3.	Min.	

TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Planning the Response
Incident Action Plan
Skill #9

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.3.5, 7.3.5.2, 7.3.5.2.1, 7.3.5.2.2, 7.6.3(1), 7.6.3(2), 7.6.3(8) **TECHNICIAN**

OBJECTIVE
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall develop a plan of action, including site safety and a control plan that is consistent with the emergency response plan and standard operating procedures and within the capability of available personnel, personal protective equipment, and control equipment for that incident.

Given a scenario involving a hazardous materials/WMD incident, the hazardous materials technician shall develop the site safety and control plan that must be included as part of the incident action plan.

The hazardous materials technician shall list and describe the safety considerations to be included.

The hazardous materials technician shall identify the points that should be made in a safety briefing prior to working at the scene.

Given a scenario involving a hazardous materials/WMD incident, the hazardous materials technician shall complete the reporting and documentation as required by the AHJ by completing the following requirements:

- Identify the reports and supporting documentation required by the emergency response plan or standard operating procedures.
- Demonstrate completion of the reports and supporting documentation.
- Identify the requirements for compiling hot zone entry and exit logs.

INSTRUCTIONS - Procedures for achieving the objective
Given a simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting, the technician shall develop a plan of action, including site safety and a control plan. The plan shall be consistent with the local emergency response plan and the organization's standard operating procedures and thoroughly document

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responder actions. You will begin on my instruction to start. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
Simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting
ICS forms or ICS worksheets
Applicable AHJ reports and documentation

Note: Standard ICS forms may include:

- ICS 201 Incident Briefing Form
- ICS 202 Incident Objectives Worksheet
- ICS 203 Organization Assignment List
- ICS 204 Division Assignment List
- ICS 205 Communications Plan
- ICS 206 Medical Plan
- ICS 208HM Site Safety and Control Plan

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Planning the Response
Incident Action Plan
Skill #9

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #9	**S**	**U**	**S**	**U**
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall develop a plan of action, including site safety and a control plan that is consistent with the emergency response plan and standard operating procedures and within the capability of available personnel, personal protective equipment, and control equipment for that incident. (7.3.5) Given a scenario involving a hazardous materials/WMD incident, the hazardous materials technician shall develop the site safety and control plan that must be included as part of the incident action plan. (7.3.5.2) The hazardous materials technician shall list and describe the safety considerations to be included. (7.3.5.2.1) The hazardous materials technician shall identify the points that should be made in a safety briefing prior to working at the scene. (7.3.5.2.2) Given a scenario involving a hazardous materials/WMD incident, the hazardous materials technician shall complete the reporting and documentation as required by the AHJ by completing the following requirements: (7.6.3) • Identify the reports and supporting documentation required by the emergency response plan or standard operating procedures. (7.6.3(1))				

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• Demonstrate completion of the reports supporting documentation. (7.6.3(2)) • Identify the requirements for compiling hot zone entry and exit logs. (7.6.3(8))				
The trainee shall:	**S**	**U**	**S**	**U**
a) Analyze the incident				
b) Develop a complete incident action plan				
c) Develop a site safety plan				
d) Conduct a pre-entry safety briefing				
e) Log all entries and exits to and from the hot zone				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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Incident Command Worksheet

Date: _____
Incident Name: _____
Incident Address/Location: _____
Incident Command Post Location: _____
Staging Area Location: _____
Dispatch Time: _____
On-Scene Time: _____
Controlled: _____
Extinguishment: _____

Incident Commander(s)	
Name	Date/Time

1st Alarm	
Unit	
Engine	
Engine	
Ladder	
EMS	

2nd Alarm	

3rd Alarm	

Mutual Aid	
Dept	Resource

Scene Sketch

Side C

Side B

Side D

Side A

Assignments					
Division/Group	Division/Group	Division/Group	Division/Group	Division/Group	Division/Group

Incident Command Worksheet

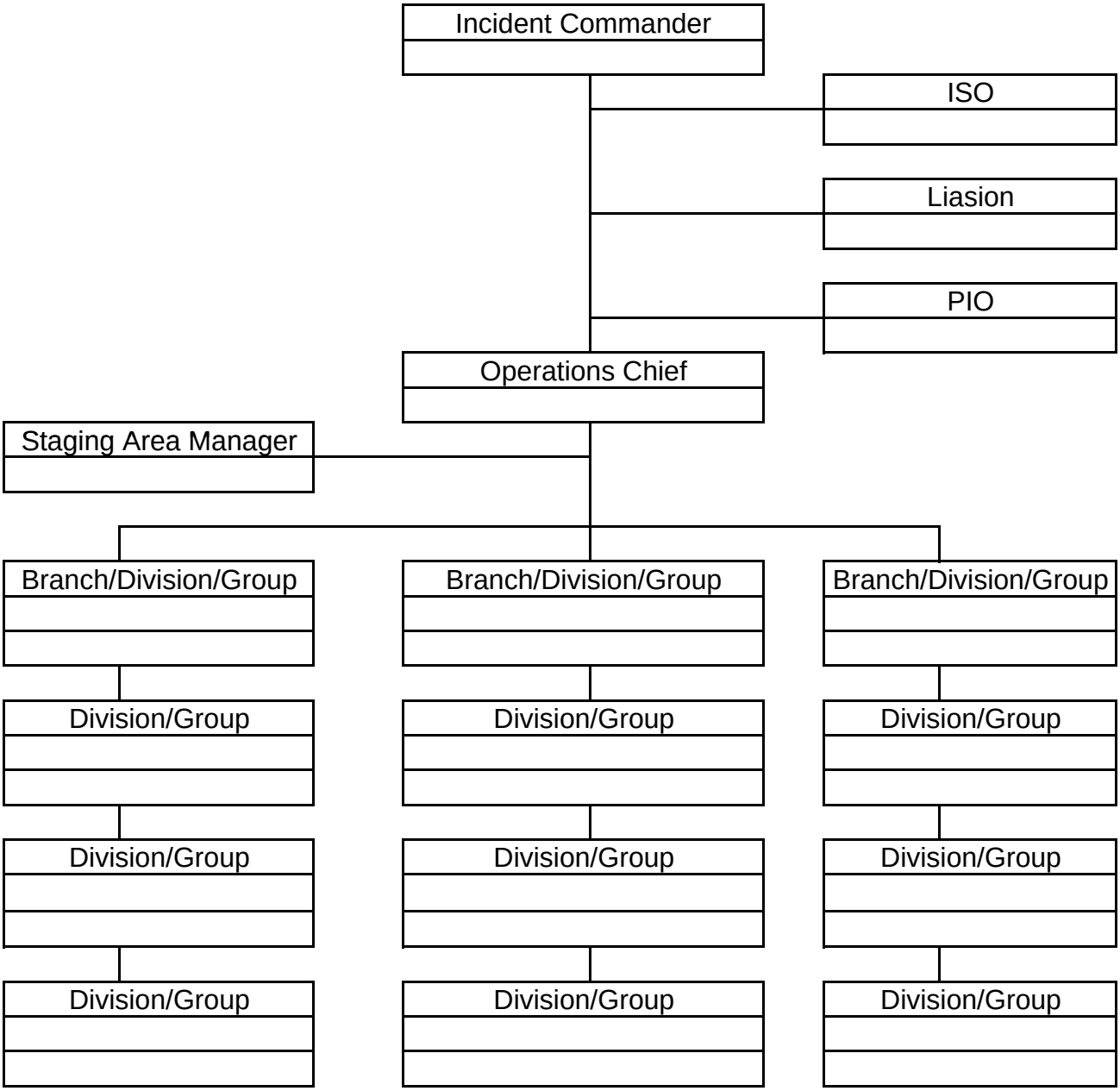
Summary of Resources							
	Resource Ordered	Resource ID	ETA	OS	# of Personnel	Location	Released
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Incident Command Worksheet

Response Objectives
Life Safety
Incident Stabilazation
Environmental Protection
Property Preservation

Tactical Priorities
Rescue
Exposures
Confinement
Extinguishment
Overhaul
Ventilation
Salvage

8 Step Hazmat Mgmt Process
Site Management & Control
Identify the Material Involved
Identify the Hazards and Risks
Select Proper PPE/CPC
Coordinate Info & Resources
Develop & Implement Objs
Decontamination
Termination Activities



Incident Command Worksheet

Summary of Actions		
	Time/Date	Activity
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
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37		
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39		
40		

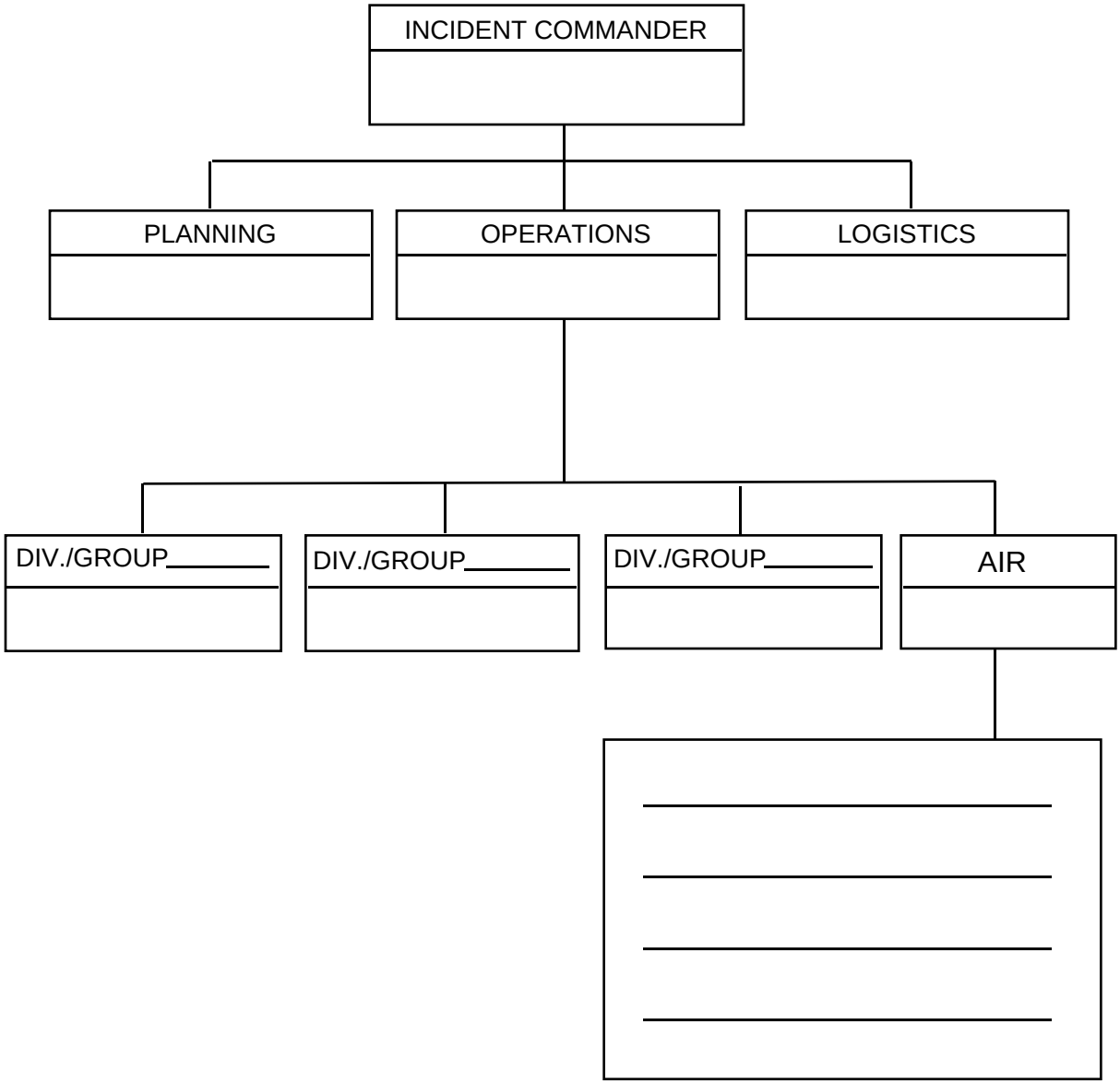
INCIDENT BRIEFING	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

4. MAP SKETCH

ICS 201 (12/93) **NFES 1325**	PAGE 1	5. PREPARED BY (NAME AND POSITION)

6. SUMMARY OF CURRENT ACTIONS

7. CURRENT ORGANIZATION



8. RESOURCES SUMMARY				
RESOURCES ORDERED	RESOURCES IDENTIFICATION	ETA	ON SCENE √	LOCATION/ASSIGNMENT
ICS 201 (12/93) **NFES 1325**	PAGE 4			

INCIDENT OBJECTIVES

1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

4. OPERATIONAL PERIOD (DATE/TIME)

5. GENERAL CONTROL OBJECTIVES FOR THE INCIDENT (INCLUDE ALTERNATIVES)

6. WEATHER FORECAST FOR OPERATIONAL PERIOD

7. GENERAL SAFETY MESSAGE

8. ATTACHMENTS (✓ IF ATTACHED)

- ☐ ORGANIZATION LIST (ICS 203)
- ☐ ASSIGNMENT LIST (ICS 204)
- ☐ COMMUNICATIONS PLAN (ICS 205)
- ☐ MEDICAL PLAN (ICS 206)
- ☐ INCIDENT MAP
- ☐ TRAFFIC PLAN
- ☐ _____
- ☐ _____
- ☐ _____

9. PREPARED BY (PLANNING SECTION CHIEF)	10. APPROVED BY (INCIDENT COMMANDER)

ORGANIZATION ASSIGNMENT LIST

1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

POSITION	NAME

4. OPERATIONAL PERIOD (DATE/TIME)

5. INCIDENT COMMANDER AND STAFF

INCIDENT COMMANDER	
DEPUTY	
SAFTEY OFFICER	
INFORMATION OFFICER	
LIAISON OFFICER	

6. AGENCY REPRESENTATIVES

AGENCY	NAME

7. PLANNING SECTION

CHIEF	
DEPUTY	
RESOURCES UNIT	
SITUATION UNIT	
DOCUMENTATION UNIT	
DEMOBILIZATION UNIT	
TECHNICAL SPECIALISTS	

8. LOGISTICS SECTION

CHIEF	
DEPUTY	
a. SUPPORT BRANCH	
DIRECTOR	
SUPPLY UNIT	
FACILITIES UNIT	
GROUND SUPPORT UNIT	
b. SERVICE BRANCH	
DIRECTOR	
COMMUNICATIONS UNIT	
MEDICAL UNIT	
FOOD UNIT	

9. OPERATIONS SECTION

CHIEF		
DEPUTY		
a. BRANCH I- DIVISION/GROUPS		
BRANCH DIRECTOR		
DEPUTY		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
b. BRANCH II- DIVISION/GROUPS		
BRANCH DIRECTOR		
DEPUTY		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
c. BRANCH III- DIVISION/GROUPS		
BRANCH DIRECTOR		
DEPUTY		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
DIVISION/GROUP		
d. AIR OPERATIONS BRANCH		
AIR OPERATIONS BR. DIR.		
AIR TACTICAL GROUP SUP.		
AIR SUPPORT GROUP SUP.		
HELICOPTER COORDINATOR		
AIR TANKER/FIXED WING CRD.		

10. FINANCE/ADMINISTRATION SECTION

CHIEF	
DEPUTY	
TIME UNIT	
PROCUREMENT UNIT	
COMPENSATION/CLAIMS UNIT	
COST UNIT	

PREPARED BY(RESOURCES UNIT)

1. BRANCH	2. DIVISION/GROUP	**ASSIGNMENT LIST**

3. INCIDENT NAME	4. OPERATIONAL PERIOD DATE _____ TIME _____

5. OPERATIONAL PERSONNEL

OPERATIONS CHIEF _____ DIVISION/GROUP SUPERVISOR _____

BRANCH DIRECTOR _____ AIR TACTICAL GROUP SUPERVISOR _____

6. RESOURCES ASSIGNED THIS PERIOD

STRIKE TEAM/TASK FORCE/ RESOURCE DESIGNATOR	EMT	LEADER	NUMBER PERSONS	TRANS. NEEDED	PICKUP PT./TIME	DROP OFF PT./TIME

7. CONTROL OPERATIONS

8. SPECIAL INSTRUCTIONS

9. DIVISION/GROUP COMMUNICATIONS SUMMARY

FUNCTION		FREQ.	SYSTEM	CHAN.	FUNCTION		FREQ.	SYSTEM	CHAN.
COMMAND	LOCAL				SUPPORT	LOCAL			
	REPEAT					REPEAT			
DIV./GROUP TACTICAL					GROUND TO AIR				

PREPARED BY (RESOURCE UNIT LEADER)	APPROVED BY (PLANNING SECT. CH.)	DATE	TIME

INCIDENT RADIO COMMUNICATIONS PLAN

1. INCIDENT NAME	2. DATE/TIME PREPARED	3. OPERATIONAL PERIOD DATE/TIME

4. BASE RADIO CHANNEL UTILIZATION

SYSTEM/CACHE	CHANNEL	FUNCTION	FREQUENCY/TONE	ASSIGNMENT	REMARKS

5. PREPARED BY (COMMUNICATIONS UNIT)

MEDICAL PLAN	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED	4. OPERATIONAL PERIOD

5. INCIDENT MEDICAL AID STATIONS

MEDICAL AID STATIONS	LOCATION	PARAMEDICS	
		YES	NO

6. TRANSPORTATION

A. AMBULANCE SERVICES

NAME	ADDRESS	PHONE	PARAMEDICS	
			YES	NO

B. INCIDENT AMBULANCES

NAME	LOCATION	PARAMEDICS	
		YES	NO

7. HOSPITALS

NAME	ADDRESS	TRAVEL TIME		PHONE	HELIPAD		BURN CENTER	
		AIR	GRND		YES	NO	YES	NO

8. MEDICAL EMERGENCY PROCEDURES

206 ICS 8/78	9. PREPARED BY (MEDICAL UNIT LEADER)	10. REVIEWED BY (SAFETY OFFICER)

SITE SAFETY AND CONTROL PLAN ICS 208 HM	1. Incident Name:	2. Date Prepared:	3. Operational Period: Time:

Section I. Site Information

4. Incident Location:

Section II. Organization

5. Incident Commander:	6. HM Group Supervisor:	7. Tech. Specialist - HM Reference:
8. Safety Officer:	9. Entry Leader:	10. Site Access Control Leader:
11. Asst. Safety Officer - HM:	12. Decontamination Leader:	13. Safe Refuge Area Mgr:
14. Environmental Health:	15.	16.

17. Entry Team: (Buddy System) Name:	PPE Level	18. Decontamination Element: Name:	PPE Level
Entry 1		Decon 1	
Entry 2		Decon 2	
Entry 3		Decon 3	
Entry 4		Decon 4	

Section III. Hazard/Risk Analysis

19. Material:	Container type	Qty.	Phys. State	pH	IDLH	F.P.	I.T.	V.P.	V.D.	S.G.	LEL	UEL

Comment:

Section IV. Hazard Monitoring

20. LEL Instrument(s):	21. O_2 Instrument(s):
22. Toxicity/PPM Instrument(s):	23. Radiological Instrument(s):

Comment:

Section V. Decontamination Procedures

24. Standard Decontamination Procedures:	YES:	NO:

Comment:

Section VI. Site Communications

25. Command Frequency:	26. Tactical Frequency:	27. Entry Frequency:

Section VII. Medical Assistance

28. Medical Monitoring:	YES:	NO:	29. Medical Treatment and Transport In-place:	YES:	NO:

Comment:

Section VIII. Site Map

30. Site Map:

Weather ❑ Command Post ❑ Zones ❑ Assembly Areas ❑ Escape Routes ❑ Other ❑

Section IX. Entry Objectives

31. Entry Objectives:

Section X. SOP S and Safe Work Practices

32. Modifications to Documented SOP s or Work Practices:	YES:	NO:

Comment:

Section XI. Emergency Procedures

33. Emergency Procedures:

Section XII. Safety Briefing

34. Asst. Safety Officer - HM Signature:	Safety Briefing Completed (Time):
35. HM Group Supervisor Signature:	36. Incident Commander Signature:

INSTRUCTIONS FOR COMPLETING THE SITE SAFETY AND CONTROL PLAN
ICS 208 HM

A Site Safety and Control Plan must be completed by the Hazardous Materials Group Supervisor and reviewed by all within the Hazardous Materials Group prior to operations commencing within the Exclusion Zone.

Item Number	Item Title	Instructions
1.	**Incident Name/Number**	**Print name and/or incident number.**
2.	**Date and Time**	**Enter date and time prepared.**
3.	**Operational Period**	**Enter the time interval for which the form applies.**
4.	**Incident Location**	**Enter the address and or map coordinates of the incident.**
5 - 16.	**Organization**	**Enter names of all individuals assigned to ICS positions. (Entries 5 & 8 mandatory). Use Boxes 15 and 16 for other functions: i.e. Medical Monitoring.**
17 - 18.	**Entry Team/Decon Element**	**Enter names and level of PPE of Entry & Decon personnel. (Entries 1 - 4 mandatory buddy system and back-up.)**
19.	**Material**	**Enter names and pertinent information of all known chemical products. Enter UNK if material is not known. Include any which apply to chemical properties. (Definitions: ph = Potential for Hydrogen (Corrosivity), IDLH = Immediately Dangerous to Life and Health, F.P. = Flash Point, I.T. = Ignition Temperature, V.P. = Vapor Pressure, V.D. = Vapor Density, S.G. = Specific Gravity, LEL = Lower Explosive Limit, UEL = Upper Explosive Limit)**
20 - 23.	**Hazard Monitoring**	**List the instruments which will be used to monitor for chemical.**
24.	**Decontamination Procedures**	**Check NO if modifications are made to standard decontamination procedures and make appropriate Comments including type of solutions.**
25 - 27.	**Site Communications**	**Enter the radio frequency(ies) which apply.**
28 - 29.	**Medical Assistance**	**Enter comments if NO is checked.**
30.	**Site Map**	**Sketch or attach a site map which defines all locations and layouts of operational zones. (Check boxes are mandatory to be identified.)**
31.	**Entry Objectives**	**List all objectives to be performed by the Entry Team in the Exclusion Zone and any parameters which will alter or stop entry operations.**
32 - 33.	**SOP s, Safe Work Practices, and Emergency Procedures**	**List in Comments if any modifications to SOP s and any emergency procedures which will be affected if an emergency occurs while personnel are within the Exclusion Zone.**
34 - 36.	**Safety Briefing**	**Have the appropriate individual place their signature in the box once the Site Safety and Control Plan is reviewed. Note the time in box 34 when the safety briefing has been completed.**

TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Performing Incident Command Duties
Skill #10

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.4.1, 7.1.2.2(3)(a) **TECHNICIAN**

OBJECTIVE
Given the emergency response plan or standard operating procedures and a scenario involving a hazardous materials/WMD incident, the hazardous materials technician shall demonstrate the duties of an assigned function in the hazardous materials branch or group within the incident command system and shall identify the role of the hazardous materials technician during hazardous materials/WMD incidents.

INSTRUCTIONS - Procedures for achieving the objective
Given a simulated hazardous materials/WMD incident scenario, you will be evaluated on your ability to perform the assigned duties of a hazardous materials branch/group functional assignment. Your assignment will be assigned to you by the examiner and may be one of the following positions:

(1) Hazardous materials branch director/group supervisor
(2) Assistant safety officer — Hazardous materials
(3) Site access control leader
(4) Decontamination leader
(5) Technical specialist — Hazardous materials leader
(6) Safe refuge area manager

You shall function as part of the incident command system and shall operate as a component of a written incident action plan. You will begin on my instruction to start. The skill will end when the hazardous materials/WMD incident scenario has terminated. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
A scenario involving a hazardous materials/WMD incident

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Performing Incident Command Duties
Skill #10

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #10	**S**	**U**	**S**	**U**
Given the emergency response plan or standard operating procedures and a scenario involving a hazardous materials/WMD incident, the hazardous materials technician shall demonstrate the duties of an assigned function in the hazardous materials branch or group within the incident command system and shall identify the role of the hazardous materials technician during hazardous materials/WMD incidents. (7.4.1)				
The trainee shall:	**S**	**U**	**S**	**U**
Hazardous Materials Branch/Group Assignment:_____				
a) Effectively perform the assigned duties				
b) Operated within the incident command system				
c) Operated within the constraints of the incident action plan and site safety plan				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

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_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Using Chemical Protective Clothing and Respiratory Protection
Skill #11

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.4.2 (1), (2), (3), (4) **TECHNICIAN**

OBJECTIVE
The hazardous materials technician shall demonstrate the ability to don, work in, and doff liquid splash–protective, vapor-protective, and chemical-protective clothing and any other specialized personal protective equipment provided by the AHJ*, including respiratory protection, and shall complete the following tasks:

(1) Describe three safety procedures for personnel working in chemical-protective clothing.
(2) Describe three emergency procedures for personnel working in chemical-protective clothing.

Emergency procedures for personnel working in vapor-protective clothing should include procedures for the following:
(1) Loss of air supply
(2) Loss of suit integrity
(3) Loss of verbal communications
(4) Buddy down in hot zone

(3) Demonstrate the ability to don, work in, and doff self-contained breathing apparatus in addition to any other respiratory protection provided by the AHJ.
(4) Demonstrate the ability to don, work in, and doff liquid splash–protective, vapor-protective, and chemical-protective clothing in addition to any other specialized protective equipment provided by the AHJ.*

INSTRUCTIONS - procedures for achieving the objective
Given various forms of chemical protective clothing and respiratory protection, you will don, perform manipulative tasks and doff each ensemble. You will be provided an assistant. Additionally, you will:

1) Describe three safety procedures for personnel working in chemical-protective clothing.
(2) Describe three emergency procedures for personnel working in chemical-protective clothing.

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You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
*If this skill is selected as a designated testing skill by TCFP, one of the following options will be assigned:

- Level A chemical protective clothing ensemble
- Level B chemical protective clothing ensemble
- Level C chemical protective clothing ensemble

Only the portions of the steps appropriate for the designated ensemble will be evaluated.

Steps j & k must be answered by the hazardous materials technician trainee regardless of which level of CPC has been assigned.

The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

1. Complete Level A Vapor Protective Ensemble
2. Complete Level B Splash Protective Ensemble
3. Complete Level C Splash Protective Ensemble
4. Tools and props to perform manipulative task with
5. Suitable place for technician to sit (i.e. small stool, folding chair with no back, or stepladder 18"-24")

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Using Chemical Protective Clothing and Respiratory Protection
Skill #11

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #11	**S**	**U**	**S**	**U**
The hazardous materials technician shall demonstrate the ability to don, work in, and doff liquid splash–protective, vapor-protective, and chemical-protective clothing and any other specialized personal protective equipment provided by the AHJ, including respiratory protection, and shall complete the following tasks: (1) Describe three safety procedures for personnel working in chemical-protective clothing. (2) Describe three emergency procedures for personnel working in chemical-protective clothing. (3) Demonstrate the ability to don, work in, and doff self-contained breathing apparatus in addition to any other respiratory protection provided by the AHJ. (4) Demonstrate the ability to don, work in, and doff liquid splash–protective, vapor-protective, and chemical-protective clothing in addition to any other specialized protective equipment provided by the AHJ. (7.4.2)				
The candidate shall:	**S**	**U**	**S**	**U**
Level A Vapor Protective CPC Ensemble				
a) Properly Don a Level A Vapor Protective CPC Ensemble				
b) Perform a manipulative task while wearing a Level A Vapor Protective CPC Ensemble				
c) Properly Doff a Level A Vapor Protective CPC Ensemble				
Level B Splash Protective CPC Ensemble				
d) Properly Don a Level B Splash Protective CPC Ensemble				

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e) Perform a manipulative task while wearing a Level B Splash Protective CPC Ensemble				
f) Properly Doff a Level B Splash Protective CPC Ensemble				
Level C Splash Protective CPC Ensemble				
g) Properly Don a Level C Splash Protective CPC Ensemble				
h) Perform a manipulative task while wearing a Level C Splash Protective CPC Ensemble				
i) Properly Doff a Level C Splash Protective CPC Ensemble				
CPC Safety & Emergency Procedures – all examinees				
j) Describe three safety procedures for personnel working in chemical-protective clothing.				
k) Describe three emergency procedures for personnel working in chemical-protective clothing.				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

_____

_____

_____

_____

_____

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Using Chlorine Kits
Skill #12

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.4.3 (1), (2), (5); 7.5.1 **TECHNICIAN**

OBJECTIVE
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall select the tools, equipment, and materials for the control of hazardous materials/WMD incidents and identify the precautions for controlling releases from the packaging/containers and shall complete the following tasks:

Given a pressure vessel, select the 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

Given the fittings on a pressure container, demonstrate the ability to perform the following:

(a) Close valves that are open
(b) Replace missing plugs
(c) Tighten loose plugs

Identify the maintenance and inspection procedures for the tools and equipment provided for the control of hazardous materials releases according to the manufacturer's specifications and recommendations.

Given scenarios involving hazardous materials/WMD incidents and the incident action plan, the hazardous materials technician shall evaluate the effectiveness of any control functions identified in the plan of action.

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INSTRUCTIONS - procedures for achieving the objective

You will be provided with a Chlorine Cylinder/Container/Tank Simulator and three chlorine emergency response kits that contain the necessary tools and equipment to contain a leak. The examiner will select a type of leak and/or location of the leak. Working as a team, you must choose the proper chlorine kit for the evaluation, inspect its contents, and effectively stop the leak. Your team must indicate to me when the leak has been controlled. You will be graded as a team. You will begin on my instruction to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE

*If this skill is selected as a designated testing skill by TCFP, one of the following options will be assigned:

- Apply a Chlorine A Kit
- Apply a Chlorine B Kit
- Apply a Chlorine C Kit or Midland Emergency Kit

The examiner will identify the leak to be controlled. The team will be evaluated on the effectiveness of applying the appropriate kit components to control the leak.

The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

1. 1 - Chlorine 100 or 150 lbs. pressure vessel simulator
2. 1 - Chlorine One Ton Intermediate Bulk container pressure vessel simulator
3. 1 - Chlorine Pressure Railcar dome assembly simulator
4. 1 - Chlorine A Kit
5. 1 - Chlorine B Kit
6. 1 - Chlorine C Kit or Midland Emergency Kit
7. Level A CPC

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Using Chlorine Kits
Skill #12

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #12	**S**	**U**	**S**	**U**
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall select the tools, equipment, and materials for the control of hazardous materials/WMD incidents and identify the precautions for controlling releases from the packaging/containers and shall complete the following tasks: (1) Given a pressure vessel, select the 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 (2) Given the fittings on a pressure container, demonstrate the ability to perform the following: (a) Close valves that are open (b) Replace missing plugs (c) Tighten loose plugs (5) Identify the maintenance and inspection procedures for the tools and equipment provided for the control of hazardous materials releases according to the manufacturer's specifications and recommendations. (7.4.3)				

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Given scenarios involving hazardous materials/WMD incidents and the incident action plan, the hazardous materials technician shall evaluate the effectiveness of any control functions identified in the plan of action. (7.5.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Given a Chlorine 100 or 150 lbs. pressure vessel select a Chlorine Emergency Kit Type A and contain a leak. Leak Location/Type: _____				
b) Given a Chlorine One Ton Intermediate Bulk container pressure vessel select a Chlorine Emergency Kit Type B and contain a leak. Leak Location/Type: _____				
c) Given a Chlorine Pressure Railcar Dome assembly select a Chlorine Emergency Kit Type B and contain a leak. Leak Location/Type: _____				
d) All steps must be performed while wearing Level A Vapor Protective Chemical Protective Clothing				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Contain a Leak in a 55 Gallon Drum
Skill #13

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.4.3 (3), (4), (5); 7.5.1 **TECHNICIAN**

OBJECTIVE
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall select the tools, equipment, and materials for the control of hazardous materials/WMD incidents and identify the precautions for controlling releases from the packaging/containers and shall complete the following tasks:

Given a 55 gal (208 L) drum and applicable tools and materials, demonstrate the ability to contain the following types of leaks:
(a) Bung leak
(b) Chime leak
(c) Forklift puncture
(d) Nail puncture

Given a 55 gal (208 L) drum and an over pack drum, demonstrate the ability to place the 55 gal (208 L) drum into the over pack drum using the following methods:
(a) Rolling slide-in
(b) Slide-in
(c) Slip-over

Identify the maintenance and inspection procedures for the tools and equipment provided for the control of hazardous materials releases according to the manufacturer's specifications and recommendations.

Given scenarios involving hazardous materials/WMD incidents and the incident action plan, the hazardous materials technician shall evaluate the effectiveness of any control functions identified in the plan of action.

INSTRUCTIONS - procedures for achieving the objective
Presented with a 55-gallon leaking drum containing a randomly selected leak involving either a nail puncture, a forklift puncture, a chime leak, or a leaking closure (bung or top) you will choose the appropriate tools and equipment from the equipment available, inspect its serviceability, and contain the leak. Additionally you will over pack the drum utilizing a randomly selected method (selected by the examiner). After donning CPC, you will begin on my instruction to start. The skill will end when you state or indicate to

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me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
1.) A 55-gallon drum with either a nail puncture, a forklift puncture, a chime leak, or a leaking closure (bung).
2.) Bung wrench
3.) Drum plugging and patching kit
4.) Over pack drum
5.) CPC with respiratory protection

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Contain a Leak in a 55 Gallon Drum
Skill #13

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #13	**S**	**U**	**S**	**U**
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall select the tools, equipment, and materials for the control of hazardous materials/WMD incidents and identify the precautions for controlling releases from the packaging/containers and shall complete the following tasks: (3) Given a 55 gal (208 L) drum and applicable tools and materials, demonstrate the ability to contain the following types of leaks: (a) Bung leak (b) Chime leak (c) Forklift puncture (d) Nail puncture (4) Given a 55 gal (208 L) drum and an over pack drum, demonstrate the ability to place the 55 gal (208 L) drum into the over pack drum using the following methods: (a) Rolling slide-in (b) Slide-in (c) Slip-over (5) Identify the maintenance and inspection procedures for the tools and equipment provided for the control of hazardous materials releases according to the manufacturer's specifications and recommendations. (7.4.3) Given scenarios involving hazardous materials/WMD incidents and the incident action plan, the hazardous materials technician shall evaluate the effectiveness of any				

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control functions identified in the plan of action. (7.5.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Given a 55 gal (208 L) drum and applicable tools and materials, demonstrate the ability to contain one of the following types of leaks: • Bung leak • Chime leak • Forklift puncture • Nail puncture				
b) Given a 55 gal (208 L) drum and an over pack drum, demonstrate the ability to place the 55 gal (208 L) drum into the over pack drum using one of the following methods: • Rolling slide-in • Slide-in • Slip-over				
c) All tasks must be performed in Chemical Protective Clothing				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Highway Cargo Tank Emergency Response
Skill #14

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.4.3 (5), (6), (7), (8), (9), (10), (11); 7.5.1 **TECHNICIAN**

OBJECTIVE
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall select the tools, equipment, and materials for the control of hazardous materials/WMD incidents and identify the precautions for controlling releases from the packaging/containers and shall complete the following tasks:

Identify the maintenance and inspection procedures for the tools and equipment provided for the control of hazardous materials releases according to the manufacturer's specifications and recommendations.

Identify three considerations for assessing a leak or spill inside a confined space without entering the area.

Identify three safety considerations for product transfer operations.

Given an MC-306/DOT-406 cargo tank and a dome cover clamp, demonstrate the ability to install the clamp on the dome.

Identify the methods and precautions used to control a fire involving an MC-306/DOT-406 aluminum shell cargo tank.

Describe at least one method for containing each of the following types of leaks in MC-306/DOT-406, MC-307/DOT-407, and MC-312/DOT-412 cargo tanks:
(a) Dome cover leak
(b) Irregular-shaped hole
(c) Puncture
(d) Split or tear

Describe three product removal and transfer considerations for overturned MC-306/DOT-406, MC-307/DOT-407, MC-312/DOT-412, MC-331, and MC-338 cargo tanks.

Given scenarios involving hazardous materials/WMD incidents and the incident action plan, the hazardous materials technician shall evaluate the effectiveness of any control functions identified in the plan of action.

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INSTRUCTIONS - procedures for achieving the objective

You will be presented with an MC 306/DOT 406 cargo tank, which is leaking a product from one of the dome covers. You will gather the necessary equipment for grounding the cargo tank and controlling the leak coming from the dome cover and inspect them for serviceability. You will properly install the dome clamp and ground and bond the cargo tank in anticipation of product transfer operations. You will be graded as a team. You will begin on my instruction to start. The skill will end when you state or indicate to me that you have completed the above identified steps. Do you understand these instructions?

EXAMINER'S NOTE

The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

1. 1 - MC 306/DOT 406 Cargo tank laying on its side and water spilling out of a dome cover; or a Cargo tank dome cover training simulator and water spilling out of the dome cover
2. 1 - Dome cover clamp
3. 1 - LEL monitor
4. 1 - Complete set of grounding equipment
    a. Ground rod
    b. Ground clamps
    c. Grounding cables
    d. Non-sparking hammer

The hazardous materials technician trainee shall accomplish the skill wearing **"FULL PROTECTIVE CLOTHING FOR STRUCTURAL FIREFIGHTERS"** as required by the Texas Commission on Fire Protection to include helmet, coat, trousers, boots, and SCBA.

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Highway Cargo Tank Emergency Response
Skill #14

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill #14	**S**	**U**	**S**	**U**
Given scenarios involving hazardous materials/WMD incidents, the hazardous materials technician shall select the tools, equipment, and materials for the control of hazardous materials/WMD incidents and identify the precautions for controlling releases from the packaging/containers and shall complete the following tasks: (5) Identify the maintenance and inspection procedures for the tools and equipment provided for the control of hazardous materials releases according to the manufacturer's specifications and recommendations. (6) Identify three considerations for assessing a leak or spill inside a confined space without entering the area. (7) Identify three safety considerations for product transfer operations. (8) Given an MC-306/DOT-406 cargo tank and a dome cover clamp, demonstrate the ability to install the clamp on the dome. (9) Identify the methods and precautions used to control a fire involving an MC-306/DOT-406 aluminum shell cargo tank. (10) Describe at least one method for containing each of the following types of leaks in MC-306/DOT-406, MC-307/DOT-407, and MC-312/DOT-412 cargo tanks: (a) Dome cover leak (b) Irregular-shaped hole (c) Puncture (d) Split or tear				

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(11) Describe three product removal and transfer considerations for overturned MC-306/DOT-406, MC-307/DOT-407, MC-312/DOT-412, MC-331, and MC-338 cargo tanks. (7.4.3) Given scenarios involving hazardous materials/WMD incidents and the incident action plan, the hazardous materials technician shall evaluate the effectiveness of any control functions identified in the plan of action. (7.5.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Identify the maintenance and inspection procedures for the tools and equipment provided for the control of hazardous materials releases according to the manufacturer's specifications and recommendations.				
b) Identify three considerations for assessing a leak or spill inside a confined space without entering the area.				
c) Identify three safety considerations for product transfer operations.				
d) Given an MC-306/DOT-406 cargo tank and a dome cover clamp, demonstrate the ability to install the clamp on the dome.				
e) Identify the methods and precautions used to control a fire involving an MC-306/DOT-406 aluminum shell cargo tank.				
f) Describe at least one method for containing each of the following types of leaks in MC-306/DOT-406, MC-307/DOT-407, and MC-312/DOT-412 cargo tanks: (a) Dome cover leak (b) Irregular-shaped hole (c) Puncture (d) Split or tear				
g) Describe three product removal and transfer considerations for overturned MC-306/DOT-406, MC-307/DOT-407, MC-312/DOT-412, MC-331, and MC-338 cargo tanks.				
h) Properly bond and ground the cargo tank in preparation of conducting transfer operations				
i) All tasks performed while wearing a full structural firefighting protective ensemble including SCBA.				

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Decontamination Operations
Skill #15

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.4.5 (1), (2), (3) **TECHNICIAN**

OBJECTIVE
The hazardous materials technician shall demonstrate the ability to set up and implement the following types of decontamination operations:

(1) Technical decontamination operations in support of entry operations
(2) Technical decontamination operations involving ambulatory and non-ambulatory victims
(3) Mass decontamination operations involving ambulatory and non-ambulatory victims

INSTRUCTIONS - procedures for achieving the objective
The technician, operating as a member of a team at a simulated hazardous materials incident, shall demonstrate how to perform technical and mass decontamination operations. You will be provided with the necessary equipment and water supply to set up and establish a technical contamination reduction corridor. After establishing a technical contamination reduction corridor, while wearing Level B chemical protective clothing (CPC) and a self-contained breathing apparatus (SCBA), you shall demonstrate the procedures to decontaminate responders and both ambulatory and non-ambulatory victims during a simulated hazardous materials incident. Working as part of a team you will establish a mass decontamination corridor and explain how the decontamination of both ambulatory and non-ambulatory victims will be conducted during a simulated mass casualty hazardous materials incident.

You will be graded as a team. You will begin on my instruction to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
If this skill is selected as a designated testing skill by TCFP, one of the following three options will be assigned:

- Scenario A: Establish a technical decontamination corridor and conduct operations
- Scenario B: Establish and provide technical decontamination procedures to ambulatory and nonambulatory victims

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- Scenario C: Establish mass decontamination operations involving ambulatory and nonambulatory victims

The examiner will evaluate the appropriateness and effectiveness of the decontamination methods employed by the team.

The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

1. Emergency Response and Hazardous Materials Response Equipment
2. Technical Decontamination Equipment
3. Mass Decontamination Equipment
4. Complete Level B CPC ensembles w/SCBAs
5. One technician in Level A CPC that has been “contaminated”
6. A dummy/manikin or a non responder victim to be decontaminated

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

Implementing the Planned Response
Decontamination Operations
Skill #15

Candidate:_____ Date:_____

Academy: _____ Test Site:_____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill 15	**S**	**U**	**S**	**U**
The hazardous materials technician shall demonstrate the ability to set up and implement the following types of decontamination operations: (1) Technical decontamination operations in support of entry operations (2) Technical decontamination operations involving ambulatory and non-ambulatory victims (3) Mass decontamination operations involving ambulatory and non-ambulatory victims (7.4.5)				
The candidate shall perform:	**S**	**U**	**S**	**U**
Scenario A: Establish a technical decontamination corridor and conduct operations				
1. Properly locates Contamination Reduction Corridor upwind, uphill, and in warm zone				
2. Provides protective measure to protect the environment from contamination by constructing a large catch basin with plastic				
3. Sets up decon pools to contain decontamination solution run off				
4. Clearly marks entrance and exit access points				
5. Container available at entrance access point, in hot zone, for contaminated tools				
6. Container available in CRC for contaminated CPC				
7. Establishes suit removal area with suitable seating next to cold zone and takes precautions to eliminate contamination				
8. Establishes water supply				
9. Provides water to each decon pool area (i.e. garden hose)				

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10. Provides brushes for decon pool(s)				
11. Mixes proper decon solution for use				
12. Decontaminates entry personnel				
a. Instructs technician to put tools in tool drop container				
b. Performs gross decontamination and wash at first decon pool to remove as much contamination as possible				
c. Performs wash/rinse at subsequent decon pool(s)				
d. Assist technician with CPC removal in doffing area				
e. Places contaminated CPC in proper drum				
f. Removes SCBA				
g. Instructs technician to move to medical evaluation area				
Scenario B: Establish and provide technical decontamination procedures to ambulatory and non-ambulatory victims				
1. Transfer victim to emergency decontamination area				
2. Flush victim with copious amounts of water				
3. Remove outer layers of clothing				
4. Flush victim with copious amounts of water				
5. Remove victims respiratory protection if worn				
6. Cover with clean sheet				
7. Transfer care to EMS				
8. Transfer information regarding the name of the known or possible chemical hazard exposure				
Scenario C: Establish mass decontamination operations involving ambulatory and nonambulatory victims				
1. Establishes a mass decontamination corridor in accordance with local protocols				
2. Establishes patient triage and treatment areas for both ambulatory and non-ambulatory victims				
3. Explains the mass decontamination process				
All scenarios				
Conducts all decontamination operations while wearing full Level B liquid splash protective CPC				
Verbally evaluates the effectiveness of the decontamination process				

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

General
Terminating the Incident
Skill #16

PERFORMANCE STANDARD **Section 604**

NFPA 472, 2013 edition, 7.1.2.2 (5) **TECHNICIAN**

OBJECTIVE
In addition to being competent at both the awareness and operational levels, the hazardous materials technician shall be able to perform the following tasks:
(5) Terminate the incident by completing the following tasks:

- Assist in the incident debriefing
- Assist in the incident critique
- Provide reports and documentation of the incident

INSTRUCTIONS - Procedures for achieving the objective
Immediately upon completion of a simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting, the technician shall conduct a debriefing of the incident. Additionally, after returning all equipment to service, the technician shall conduct a critique of the incident/scenario in a classroom environment. The technician will ensure that all incident documentation is thoroughly completed in accordance with local, state and federal requirements. You will begin on my instruction to start. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials technician trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
Simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting
Incident action plan
Site safety plan
Other incident documents

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS TECHNICIAN
Performance Standards

General
Terminating the Incident
Skill #16

Candidate: _____ Date: _____

Academy: _____ Test Site: _____

HAZARDOUS MATERIALS TECHNICIAN	TEST		RETEST	
Skill 16	**S**	**U**	**S**	**U**
In addition to being competent at both the awareness and operational levels, the hazardous materials technician shall be able to perform the following tasks: (5) Terminate the incident by completing the following tasks: • Assist in the incident debriefing • Assist in the incident critique • Provide reports and documentation of the incident (7.1.2.2(5))				
The candidate shall:	**S**	**U**	**S**	**U**
a) Conduct a debriefing				
1. Provide health and exposure information to responders				
2. Identify equipment, apparatus and supply status				
3. Identify a follow-up contact person for informational matters				
4. Identify problems requiring immediate action				
b) Conduct a critique				
1. Review emergency response timeline				
2. Identify weaknesses in the response activity				
3. Identify strengths in the response activity				
4. Develop recommendations for improving emergency response				
c) Complete all incident reports and documentation • Local requirements • State requirements • Federal requirements				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

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Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Collecting and Interpreting Hazard and Response Information
Skill #1

PERFORMANCE STANDARD **Section 605**

NFPA 472, 2013 edition, 8.2.1.1 **INCIDENT COMMANDER**

OBJECTIVE
Given access to printed and technical resources, computer databases, and monitoring equipment, the incident commander shall ensure the collection and interpretation of hazard and response information not available from the current edition of the DOT *Emergency Response Guidebook* or an MSDS.

INSTRUCTIONS - procedures for achieving the objective
Given a hazardous materials incident/WMD scenario, you will collect and interpret hazard and response information utilizing provided printed and technical reference resources, computer databases and monitoring results. Given the data provided and using the information you have interpreted, you will develop an incident site safety plan and complete a product data sheet(s). You will begin on my instructions to start. The skill will end when you state or indicate to me that you have completed all the identified steps. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials incident commander trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
1. Various hazardous materials/WMD incident scenarios
2. Various hazardous materials printed reference text (see reference list and equipment list).
3. Various hazardous materials electronic databases as provided by AHJ (i.e. WISER and/or CAMEO)
4. Chemical data worksheet
5. Site safety plan worksheet (i.e. ICS form 208HM)

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Collecting and Interpreting Hazard and Response Information
Skill #1

Candidate:_____ Notes:_____

Dept: _____ _____

School: _____ _____

Test Site: _____ _____

Examiner: _____ _____

HAZARDOUS MATERIALS INCIDENT COMMANDER	TEST		RETEST	
Skill #1	**S**	**U**	**S**	**U**
Given access to printed and technical resources, computer databases, and monitoring equipment, the incident commander shall ensure the collection and interpretation of hazard and response information not available from the current edition of the DOT *Emergency Response Guidebook* or an MSDS. (8.2.1.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Uses a minimum of three reference sources				
b) Complete a chemical data worksheet for each chemical identified				
c) Using all data collected, complete a site safety plan*				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

***At a minimum, the site safety plan should include the following information:**

1. Maximum exposure limits
2. Identifies hazards or conditions present
3. Level of PPE needed
4. Hazardous substance safe handling procedures
5. Identifies the need for a site map
6. Use of the “buddy system”
7. Backup personnel

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8. Medical support
9. Safety officer
10. Decontamination procedures
11. Hazard monitoring
12. Control zones

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Incident Action Plan
Skill #2

PERFORMANCE STANDARD **Section 605**

NFPA 472, 2013 edition, 8.1.2.2(3)(c), (4), (5)(a); 8.3.4 **INCIDENT COMMANDER**

OBJECTIVES
Provide a focal point for information transfer to media and local elected officials through the incident command system structure. (8.1.2.2(3)(c))

Evaluate the progress of the planned response to ensure the response objectives are being met safely, effectively, and efficiently and adjust the incident plan accordingly. (8.1.2.2(4))

Transfer command (control) when appropriate. (8.1.2.2(5)(a))

Given scenarios involving hazardous materials/WMD incidents, the incident commander shall develop an incident action plan, including site safety and control plan, consistent with the emergency response plan or standard operating procedures and within the capability of the available personnel, personal protective equipment, and control equipment. (8.3.4)

INSTRUCTIONS - Procedures for achieving the objective
Given a simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting, the incident commander shall develop a complete incident action plan (IAP) including a site safety plan. Additionally, a focal point for information transfer to media and local elected officials must be established within the incident command system structure. Command should be transferred when appropriate. The plan shall be consistent with the local emergency response plan and the organization's standard operating procedures. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials incident commander trainee will not be allowed to review the performance steps at the time of testing.

If the incident commander trainee has already completed a site safety plan for the provided scenario to meet the requirements of skill #1, that site safety plan may be submitted as a component of this incident action plan assignment. If a site safety plan has not been completed a new one must be developed to meet the requirements of this skill.

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PREPARATION & EQUIPMENT

Simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting
ICS forms or ICS worksheet

Note: Standard ICS forms would include:

- ICS 201 Incident Briefing Form
- ICS 202 Incident Objectives Worksheet
- ICS 203 Organization Assignment List
- ICS 204 Division Assignment List
- ICS 205 Communications Plan
- ICS 206 Medical Plan
- ICS 208HM Site Safety and Control Plan

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Incident Action Plan
Skill #2

Candidate:_____ Notes:_____

Dept: _____ _____

School: _____ _____

Test Site: _____ _____

Examiner: _____ _____

HAZARDOUS MATERIALS INCIDENT COMMANDER	TEST		RETEST	
SKILL #2	**S**	**U**	**S**	**U**
Provide a focal point for information transfer to media and local elected officials through the incident command system structure. (8.1.2.2(3)(c)) Evaluate the progress of the planned response to ensure the response objectives are being met safely, effectively, and efficiently and adjust the incident plan accordingly. (8.1.2.2(4)) Transfer command (control) when appropriate. (8.1.2.2(5)(a)) Given scenarios involving hazardous materials/WMD incidents, the incident commander shall develop an incident action plan, including site safety and control plan, consistent with the emergency response plan or standard operating procedures and within the capability of the available personnel, personal protective equipment, and control equipment. (8.3.4)				
The candidate shall:	**S**	**U**	**S**	**U**
a. Analyze the incident				
b. Collect and interpret hazard and response information				
c. Estimate the potential outcomes				
d. Identify the response objectives				
e. Identify the potential response options				
f. Approve the level of personal protective equipment				

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g. Develop a complete incident action plan				
h. Develop a site safety plan (see examiner's note above)				
i. Provide a focal point for information transfer to media and local elected officials through the ICS structure				
j. Evaluate the progress of the planned response and adjust the incident action plan accordingly				
k. Transfer command (control) when appropriate				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Directing Resources (Private and Governmental)
Skill #3

PERFORMANCE STANDARD **Section 605**

NFPA 472, 2013 edition, 8.1.2.2(3)(a), (b), (5)(a); 8.4.2; 8.5.1 **INCIDENT COMMANDER**

OBJECTIVE

Implement an incident command system, including the specified procedures for notification and utilization of nonlocal resources (e.g. private, state, and federal government personnel). (8.1.2.2(3)(a))

Direct resources (private, governmental, and others) with task assignments and on-scene activities and provide management overview, technical review, and logistical support to those resources. (8.1.2.2(3)(b))

Transfer command (control) when appropriate. (8.1.2.2(5)(a))

Given a scenario involving a hazardous materials/WMD incident and the necessary resources to implement the planned response, the incident commander shall demonstrate the ability to direct the resources in a safe and efficient manner consistent with the capabilities of those resources. (8.4.2)

Given scenarios involving hazardous materials/WMD incidents, the incident commander shall evaluate the progress of the incident action plan to determine whether the efforts are accomplishing the response objectives. (8.5.1)

INSTRUCTIONS - Procedures for achieving the objective

Given a simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting, the incident commander shall:

- implement an incident command system
- assign resources to meet the strategic goals of the incident action plan (IAP).
- specify procedures for the notification and utilization of nonlocal resources (e.g. private, state, and/or federal government personnel)
- redirect resources and transfer command as necessary to support the completion of tactical objectives as identified in the incident action plan.
- establish priorities for the assignment and redistribution of all resources dedicated to the incident.

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- evaluate the progress of the IAP to determine whether the efforts are accomplishing the response objectives

All actions shall be consistent with the local emergency response plan and the organization's standard operating procedures. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials incident commander trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
Simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting
List of available resources

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Directing Resources (Private and Governmental)
Skill #3

Candidate:_____ Notes:_____

Dept: _____ _____

School: _____ _____

Test Site: _____ _____

Examiner: _____ _____

HAZARDOUS MATERIALS INCIDENT COMMANDER	TEST		RETEST	
Skill #3	**S**	**U**	**S**	**U**
Implement an incident command system, including the specified procedures for notification and utilization of nonlocal resources (e.g. private, state, and federal government personnel). (8.1.2.2(3)(a)) Transfer command (control) when appropriate. (8.1.2.2(5)(a)) Given a scenario involving a hazardous materials/WMD incident and the necessary resources to implement the planned response, the incident commander shall demonstrate the ability to direct the resources in a safe and efficient manner consistent with the capabilities of those resources. (8.4.2) Given scenarios involving hazardous materials/WMD incidents, the incident commander shall evaluate the progress of the incident action plan to determine whether the efforts are accomplishing the response objectives. (8.5.1)				
The candidate shall:	**S**	**U**	**S**	**U**
a. Analyze the incident				
b. Implement an incident command system				
c. Develop strategic goals				

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d. Approve tactical objectives				
e. Consult with planning and technical specialists				
f. Consult with logistics concerning resource availability				
g. Properly notify and utilize nonlocal resources (private, state and/or federal government personnel)				
h. Prioritize the assignment of resources				
i. Reassign resources as needed				
j. Determine the effectiveness of all control, containment and/or confinement operations, as applicable				
k. Determine the effectiveness of the decontamination process				
l. Determine the effectiveness of the personnel being used				
m. Ensure a safe operational environment				
n. Transfer command (control) when appropriate				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Terminating the Incident
Skill #4

PERFORMANCE STANDARD **Section 605**

NFPA 472, 2013 edition, 8.1.2.2(5)(b), (c), (d); 8.6.1; 8.6.2; 8.6.3; 8.6.4 **INCIDENT COMMANDER**

OBJECTIVES
Conduct an incident debriefing. (8.1.2.2(5)(b))

Conduct a multiagency critique. (8.1.2.2(5)(c))

Report and document the hazardous materials/WMD incident and submit the report to the designated entity. (8.1.2.2(5)(d))

Given a scenario involving a hazardous materials/WMD incident in which the incident action plan objectives have been achieved, the hazardous materials incident commander shall describe the steps taken to terminate the incident consistent with the emergency response plan and/or standard operating procedures and shall complete the following tasks: (8.6.1)

(1) Identify the steps required for terminating the hazardous materials/WMD incident
(2) Identify the procedures for conducting incident debriefings at a hazardous materials/WMD incident

Given scenarios involving a hazardous materials/WMD incident, the incident commander shall conduct a debriefing of the incident. (8.6.2)

Given details of a scenario involving a multiagency hazardous materials/WMD incident, the incident commander shall conduct a critique of the incident. (8.6.3)

Given a scenario involving a hazardous materials/WMD incident, the incident commander shall demonstrate the ability to report and document the incident consistent with local, state, and federal requirements. (8.6.4)

INSTRUCTIONS - Procedures for achieving the objective
Immediately upon completion of a simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting, the incident commander shall conduct a debriefing of the incident. Additionally, after returning all equipment to

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service, the incident commander shall conduct a critique of the incident/scenario in a classroom environment. The incident commander will ensure that all incident documentation is thoroughly completed in accordance with local, state and federal requirements. You will begin on my instruction to start. Do you understand these instructions?

EXAMINER'S NOTE
The hazardous materials incident commander trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT
Simulated hazardous materials/WMD incident or scenario involving a facility or transportation setting
Incident action plan
Site safety plan
Other incident documents

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TEXAS COMMISSION ON FIRE PROTECTION
HAZARDOUS MATERIALS INCIDENT COMMANDER
Performance Standards

HAZARDOUS MATERIALS INCIDENT COMMANDER
Terminating the Incident
Skill #4

Candidate:_____ Notes:_____

Dept: _____ _____

School: _____ _____

Test Site: _____ _____

Examiner: _____ _____

HAZARDOUS MATERIALS INCIDENT COMMANDER	TEST		RETEST	
Skill #4	**S**	**U**	**S**	**U**
Conduct an incident debriefing. (8.1.2.2(5)(b))				
Conduct a multiagency critique. (8.1.2.2(5)(c))				
Report and document the hazardous materials/WMD incident and submit the report to the designated entity. (8.1.2.2(5)(d))				
Given a scenario involving a hazardous materials/WMD incident in which the incident action plan objectives have been achieved, the hazardous materials incident commander shall describe the steps taken to terminate the incident consistent with the emergency response plan and/or standard operating procedures and shall complete the following tasks (8.6.1): (1) Identify the steps required for terminating the hazardous materials/WMD incident (2) Identify the procedures for conducting incident debriefings at a hazardous materials/WMD incident				
Given scenarios involving a hazardous materials/WMD incident, the incident commander shall conduct a debriefing				

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of the incident. (8.6.2) Given details of a scenario involving a multiagency hazardous materials/WMD incident, the incident commander shall conduct a critique of the incident. (8.6.3) Given a scenario involving a hazardous materials/WMD incident, the incident commander shall demonstrate the ability to report and document the incident consistent with local, state, and federal requirements. (8.6.4)				
The candidate shall:	**S**	**U**	**S**	**U**
a) Terminate the incident per AHJ policies and procedures				
b) Conduct a debriefing				
1. Provide health and exposure information to responders				
2. Identify equipment, apparatus and supply status				
3. Identify a follow-up contact person for informational matters				
4. Identify problems requiring immediate action				
c) Conduct a critique				
1. Review emergency response timeline				
2. Identify weaknesses in the response activity				
3. Identify strengths in the response activity				
4. Develop recommendations for improving emergency response				
d) Complete all incident reports and documentation Local requirements State requirements Federal requirements				

S = Satisfactorily completed/performed
U = Unsatisfactorily performed/failed to meet objective or grading step

Evaluator/Candidate Comments:

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All steps of the skill objective are mandatory and must be scored as "Satisfactory" to pass the skill.

_____ Certifying Examiner	_____ Date	Overall Skill Sheet Score Pass ☐ Fail ☐
_____ Re-Test Certifying Examiner	_____ Date	Overall Skill Sheet Re-Test Score Pass ☐ Fail ☐

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DISCIPLINE	OBJECTIVE	#	SKILL NAME	FUNCTIONAL NAME	NFPA #
Awareness	General	1	DOT Guidebook	DOT Emergency Response Guidebook	4.1.2.2, 4.2.3, 4.4.1
Awareness	Analyzing	2	Container ID	Container Recognition	4.2.1(6)
Awareness	Analyzing	3	Hazard Recognition	Detecting the Presence of Haz-Mat/WMD	4.2.1(7-9)
Operations	General	1	Response Obj.	Analyze, Plan, Implement, and Evaluate Response	5.1.2.2
Operations	Analyzing	2	Container ID	Container ID - liquid, gas, and solid	5.2.1 (all)
Operations	Analyzing	3	Pesticide Label ID	Identify Pesticide Label Information	5.2.1.3.2
Operations	Analyzing	4	Identify MSDS	Collect hazard and response info using MSDS	5.2.2 (2), (3)
Operations	Analyzing	5	Endangered Area	Estimating the size of an endangered area	5.2.4(1), (2)
Operations	Implementing	6	Enforce scene control	Scene control zones / Public Protective Actions	5.4.1 (1-6)
Operations	Evaluating	7	Communication	Communicating the status of the planned response	5.5.2 (1), (2)
MS Operations	Implementing	1a	PPE - Level A	Donning, working in, doffing PPE - Level A suit	6.2.1.2(1), (3), 6.2.4.1(1-3), (5), 6.2.5.1
MS Operations	Implementing	1b	PPE - Level B	Donning, working in, doffing PPE - Level B suit	6.2.1.2(1), (3), 6.2.4.1(1-3), (5), 6.2.5.1
MS Operations	Implementing	1c	PPE - Level C	Donning, working in, doffing PPE - Level C suit	6.2.1.2(1), (3), 6.2.4.1(1-3), (5), 6.2.5.1
MS Operations	Implementing	2	PPE - Decon procedures	Decontamination procedures	6.2.1.2(2), 6.2.4.1(4), 6.6.4.2
MS Operations	Planning	3	PC - ID Options	Identifying options	6.6.1.2.2(1), 6.6.3.1(1), (2)
MS Operations	Implementing	4	PC - Foam Ops	Foam Operations	6.6.4.1(1), (2)
MS Operations	Implementing	5	PC - Control procedures	Implementing control procedures	6.6.4.1(3)
MS Operations	Implementing	6	PC - Hwy Cargo Tanks	Remote shut-off of highway cargo tanks	6.6.4.1(4)
MS Operations	Implementing	7	PC - Fix Facilities	Remote shut-off devices of fixed facilities	6.6.4.1(5)
Technician	Analyzing	1	Contain ID	Containers identification	7.2.1 (all)
Technician	Analyzing	2	Sample testing	Sampling and monitoring/surveying equipment	7.2.1.3.5, 7.2.1.5
Technician	Analyzing	3	Maintenance	Equipment maintenance and use	7.2.1.3.6
Technician	Analyzing	4	Container integrity	Determine integrity of container of radioactive mat'l	7.2.3.5
Technician	Analyzing	5a	Collecting info	Collect and interpret info: Transp, no fire	7.1.2.2(1)(e), 7.1.2.2(2)(e), 7.2.2, 7.2.2.4, 7.3.5.2
Technician	Analyzing	5b	Collecting info	Collect and interpret info: Transp, with fire	7.1.2.2(1)(e), 7.1.2.2(2)(e), 7.2.2, 7.2.2.4, 7.3.5.2
Technician	Analyzing	5c	Collecting info	Collect and interpret info: Industrial, no fire	7.1.2.2(1)(e), 7.1.2.2(2)(e), 7.2.2, 7.2.2.4, 7.3.5.2
Technician	Analyzing	5d	Collecting info	Collect and interpret info: Industrial, with fire	7.1.2.2(1)(e), 7.1.2.2(2)(e), 7.2.2, 7.2.2.4, 7.3.5.2
Technician	Analyzing	5e	Collecting info	Collect and interpret info: Radiation hazard	7.1.2.2(1)(e), 7.1.2.2(2)(e), 7.2.2, 7.2.2.4, 7.3.5.2
Technician	Analyzing	6a	Protective actions	ID areas of concern for PPA: Transp, no fire	7.2.5.4
Technician	Analyzing	6b	Protective actions	ID areas of concern for PPA: Transp, with fire	7.2.5.4
Technician	Analyzing	6c	Protective actions	ID areas of concern for PPA: Industrial, no fire	7.2.5.4
Technician	Analyzing	6d	Protective actions	ID areas of concern for PPA: Industrial, with fire	7.2.5.4
Technician	Analyzing	6e	Protective actions	ID areas of concern for PPA: Radiation hazard	7.2.5.4
Technician	Planning	7	Response Obj.	Identifying response objectives	7.3.1, 7.3.2
Technician	Planning	8	CPC selection	Selecting chemical protective clothing	7.3.3, 7.3.3.4.6
Technician	Planning	9	IAP	Incident action plan	7.3.5, 7.3.5.2, 7.3.5.2.1, 7.3.5.2.2, 7.6.3(1), (2), (8)
Technician	Implementing	10	ICS	Performing incident command duties	7.4.1, 7.1.2.2(3)(a)
Technician	Implementing	11a	CPC selection, level A	Using CPC and respiratory protection - Level A	7.4.2 (1-4)

DISCIPLINE	OBJECTIVE	#	SKILL NAME	FUNCTIONAL NAME	NFPA #
Technician	Implementing	11b	CPC selection, level B	Using CPC and respiratory protection - Level B	7.4.2 (1-4)
Technician	Implementing	11c	CPC selection, level C	Using CPC and respiratory protection - Level C	7.4.2 (1-4)
Technician	Implementing	12a	Chlorine kits	Chlorine A Kit	7.4.3(1), (2), (5), 7.5.1
Technician	Implementing	12b	Chlorine kits	Chlorine B Kit	7.4.3(1), (2), (5), 7.5.1
Technician	Implementing	12c	Chlorine kits	Chlorine C Kit or Midland Emergency Kit	7.4.3(1), (2), (5), 7.5.1
Technician	Implementing	13	Contain leak	Contain a leak in a 55 gallon drum	7.4.3(3), (4), (5), 7.5.1
Technician	Implementing	14	Cargo tank	Highway cargo tank emergency response	7.4.3 (5-11), 7.5.1
Technician	Implementing	15a	Decon Operations	Establish tech decon corridor and conduct operations	7.4.5(1)
Technician	Implementing	15b	Decon Operations	Tech decon for amb & non-amb victims	7.4.5(2)
Technician	Implementing	15c	Decon Operations	Mass decon for amb & nonamb victims	7.4.5(3)
Technician	General	16	Terminating the incident	Terminating the incident	7.1.2.2(5)
HMIC	Analyzing	1	Site safety plan	Collecting and interpreting hazard and response info.	8.2.1.1
HMIC	Planning	2	IAP	Incident Action Plan	8.1.2.2(3)(c), (4), (5)(a); 8.3.4
HMIC	Implementing	3	Directing resources	Directing resources (private and governmental)	8.1.2.2(3)(a), (3)(b), (5)(a); 8.4.2
HMIC	Terminating	4	Terminating the incident	Terminating the incident	8.1.2.2(5)(b), (c), (d), 8.6.1, 8.6.2, 8.6.3, 8.6.4