

Fire Service Certification Program
January 2020



**FIRE PROTECTION TECHNOLOGY
CERTIFICATION GUIDE**

Hazardous Materials Awareness



NFPA 1072

***Standard for Hazardous Materials/Weapons of Mass Destruction
Emergency Response Personnel Professional Qualifications
2017 Edition***

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Basic Certification Information

Each individual seeking International Fire Service Accreditation Congress (IFSAC) accredited certification from Portland Community College (PCC), Fire Protection Technology (FPT) Program **MUST** do the following:

- **Register**; and
- **Submit an Application for Certification Testing Date**.

The Registration and Application for Certification Testing Date **MUST** be completed online. A list of current fees and the online registration and test date application forms may be found at: <https://www.pcc.edu/programs/fire-protection/certification.html>.

Once a person has **Registered** and submitted an **Application for Certification Testing Date**, PCC FPT will evaluate the registration and application to ensure the applicant meets the criteria for the certification level for which they applied. The requirements for **Hazardous Materials Awareness (HMA)** certification are located on page 4 of this guidebook. Following the evaluation, applicants will be notified whether they meet the criteria for admission into the **Certification Process**. Upon acceptance into the **Certification Process**, the applicant is considered a **candidate for certification** and has **one year to complete** the process.

During the **Certification Process** for HMA, candidates are responsible to know all Job Performance Requirements (JPRs) identified in Chapter 4, Awareness; NFPA 1072, *Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications*, 2017 edition (NFPA 1072-2017).

Certification candidates are given two opportunities to successfully complete the written portion of the certification examination component, including the original examination. The candidate must complete the written and retest, if required, within the 12-month certification period. Failure to successfully complete the written, and retest if required, within the 12-month period, will be deemed as failure of the attempted certification level.

Candidates that fail a certification level must reapply by submitting a new **Registration** and an **Application for Certification Testing Date**, including appropriate application fees.

HMA Certification Information:

The certification examination process for to become certified at the HMA level is as follows:

- Candidate must complete the online **Registration**.
- Candidate must complete the online **Application for Certification Testing Date**, including a statement of ability to perform skills at least 15 days prior to the requested test date.
- Candidate must take the HMA written examination.
- Written examinations **will not be scored** at the testing site.
- HMA certification written examination:
 - A score of 70 percent or more is required on the written examination to receive a passing grade on the written portion of the certification examination process.
 - A score of 69 percent or less on the written examination is deemed failing. Candidates that score 69% or less will be deemed to have failed the written portion of the certification examination process.
 - If the test (initial test) is failed, the candidate must schedule a second written test (retest) to occur between 21 days and 6 months following the first failed written test. This second test will be a new, randomly generated, written test.
 - If the second test (retest) is failed, the candidate will be considered to have failed the entire certification process.
- If the certification process is failed, the candidate must wait 12-months, from the original examination date (**not the Registration date**), to reapply for certification at the HMA level.

- If the first written examination is failed, the candidate is responsible for registering online for the retest.

Requirement for admission to the HMA certification written examination process, including retests:

- **An official government issued ID (state or federal) with picture must be presented for admittance to all examinations, including retests.**
- **NOTE: Candidates are permitted to pursue Hazardous Materials Awareness Level Personnel certification simultaneously with Haz Mat Operations certification.**

Certification Examination Instructions Hazardous Materials Awareness Level NFPA 1072-2017

Certification Prerequisites and Requirements:

Candidates seeking HMA certification from PCC, FPT must meet the following requirements:

1. Candidates must meet the age and residency requirement as identified in **Chapter Four**, of PCC, FPT *Certification Policy and Procedure Manual*, Revised 2017.
2. Successful completion of the written and skill examinations at the HMA level.

Candidates that meet the requirements identified above will be awarded certification at the HMA level and receive a certificate with an official IFSAC seal and registry number.

Certification Examination Process

Written Examination:

The HMA written examination component of the certification process consists of one written test based on JPRs listed in Chapter 4, Awareness; NFPA 1072, *Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications*, 2017 edition (NFPA 1072-2017).

- Candidates are required to score a minimum of 70% on the test.
- The HMA test contains 50 multiple choice test items covering HMA JPRs as identified in Chapter 4; NFPA 1072-2017.
- Candidates are allowed one (1) hour to complete the test.
- Test items are constructed using the multiple choice format.

Example:

1. How many total tests items are on the Haz Mat Awareness certification examination?
 - a. 25
 - b. 50
 - c. 75
 - d. 100

Skills Examination:

The Haz Mat Awareness skills examination component of the certification examination consists of practical skill assessments based on the **Core Competencies** listed in Chapter 4 of NFPA 1072-2017.

- Candidates will be assessed on the one HMA skill identified in Chapter 4 of NFPA 1072-2017.
- Candidates will be required to pass the skill event examination assessed.
- The skill examination is scored on a pass/fail basis.
- The skill evaluation form is included in this study guide.

References and Textbooks:

- Department of Transportation, *Emergency Response Guidebook*, 2016 Edition.
- IFSTA, *Hazardous Materials for First Responders*, 5th Edition.
- NFPA 1072, *Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications*, 2017 Edition.
- Portland Community College, *Hazardous Materials Awareness and Operations Level Responder Skills Booklet*, 2015 Edition.

Required Equipment For Haz Mat Awareness Certification Examination

1. Each candidate applying to certify at the Haz Mat Operations level is required to bring the following NFPA compliant personal protective clothing and equipment to the test site:
 - Structural fire fighting helmet.
 - Structural fire fighting gloves.
 - Structural fire fighting boots (leather or rubber).
 - Structural fire fighting protective hood.
 - Structural fire fighting turnout coat.
 - Structural fire fighting turnout pants with suspenders.
 - Safety glasses or goggles (ANSI Standard Z87.1 compliant).
 - Self-contained breathing apparatus (SCBA). NOTE: SCBA may be shared among candidates from the same department so long as each candidate has his/her own facepiece.

2. The following are **recommended**, but not required of candidates:
 - NFPA compliant uniform “t-shirt”
 - NFPA compliant uniform pants
 - Outer garment suitable for the weather
 - Water or sports drink for hydration

Written Examination Study Guide Hazardous Materials Awareness Level

Standard:

All written examination test items are based on Chapter 4, Awareness, NFPA 1072, *Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications*, 2017 edition. Reference to the NFPA 1072 standard in the following study guide material is not the complete or official position of the NFPA. The official position of the NFPA is only represented by the “Standard” when printed in its entirety.

References:

1. Any textbook covering basic hazardous material first responder awareness and operations level knowledge and techniques appropriate for “fire academy” instruction can be used to prepare for the HMA written examination. However, PCC has chosen to adopt and reference the International Fire Service Training Association (IFSTA), *Hazardous Materials for First Responders*, 5th Edition, 2017.
2. The Department of Transportation (DOT), *Emergency Response Guidebook (ERG)*, 2016 edition, is required to answer specific test items included in the HM Awareness test. Candidates are expected to know how to use the ERG prior to the examination. Only a PCC FPT copy of the ERG issued at the time of the examination will be permitted to be used for certification testing. Candidates **will not** be permitted to use their personal copy of the ERG for certification testing.

NFPA Standard Section	IFSTA and DOT Reference Page(s)
<p>4.1.3</p> <ul style="list-style-type: none"> • Role of awareness personnel at a hazardous materials/WMD incident • Location and contents of the AHJ emergency response plan • Standard operating procedures for awareness personnel 	<p>IFSTA: 11 - 39</p> <p>DOT: 1, 6 – 25, 370 – 372, 376 – 386</p>
<p>4.2.1</p> <ul style="list-style-type: none"> • What hazardous materials and WMD are • Basic hazards associated with classes and divisions • Indicators to the presence of hazardous materials including: <ul style="list-style-type: none"> • Container shapes • NFPA 704 markings • Globally harmonized system (GHS) markings, • Placards and Labels • Pipeline markings and other transportation markings • Shipping papers with emergency response information and other indicators • Accessing information from the Emergency Response Guidebook (ERG) (current edition) using: <ul style="list-style-type: none"> • Name of the material, • UN/NA identification number • Placard applied or container identification charts <i>Types of hazard information available from the:</i> <ul style="list-style-type: none"> • ERG • Safety data sheets (SDS) • Shipping papers with emergency response information • Other approved reference sources 	<p>IFSTA: 45 - 107</p> <p>DOT: 1, 6-25</p>
<p>4.3.1</p> <ul style="list-style-type: none"> • Use of the ERG, SDS, shipping papers with emergency response information, and other approved reference sources to identify precautions to be taken to protect responders and the public • Policies and procedures for isolating the hazard area and denying entry • The purpose of and methods for isolating the hazard area and denying entry 	<p>IFSTA: 45 - 107</p> <p>DOT: 1</p>
<p>4.4.1</p> <ul style="list-style-type: none"> • Policies and procedures for notification, reporting, and communications • Types of approved communications equipment • The operation of that communications equipment 	<p>IFSTA: 113 - 130</p> <p>DOT: 1</p>

Chapters to review for written test:

IFSTA, *Hazardous Materials for First Responders Handbook, 5th Edition:*

- Chapters 1, 2, & 3.

Skills Examination Study Guide

Standard:

The skill examination test item is based on Chapter 4, of NFPA 1072, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2017 Edition. This material is not the complete or official position of the NFPA. The official position of the NFPA is only represented by the “Standard” when printed in its entirety.

References:

Textbook: Any textbook covering basic hazardous materials knowledge and techniques for first responder personnel and operations level responders appropriate for instruction can be used to prepare for the HM Awareness skill examination. However, PCC has chosen to adopt and reference one textbook: International Fire Service Training Association (IFSTA), *Hazardous Materials for First Responders*, 5th Edition . **NOTE: In the matrix below, “N/A” indicates a skill sheet is Not Available.**

Skill Events Booklet: For instructional purposes, PCC has developed and publishes a skills booklet: Fire Protection Program (FPT), *Hazardous Materials Awareness and Operations Level Responder Skills Booklet*, 2019 Edition, for use in teaching its FP 123, Haz Mat Awareness/Operations course. The *Hazardous Materials Awareness and Operations Level Responder Skills Booklet*, 2019 Edition is available from PCC FPT.

This Haz Mat Operations study guide references skill sheets included in IFSTA, *Hazardous Materials for First Responders*, 5th Edition and FPT, *Hazardous Materials Awareness and Operations Level Responder Skills Booklet*, 2019 edition.

NFPA Standard Section & Number	IFSTA Textbook Skill Sheet(s)	PCC Haz Mat Skills Booklet Skill Sheet(s)
<p>Recognition and Identification: 4.2.1</p> <ul style="list-style-type: none"> • Recognize and identify the hazardous materials/WMD and hazards involved in a hazardous materials/WMD incident • Recognizing indicators to the presence of hazardous materials/WMD • Identifying hazardous materials/WMD by name, UN/NA identification number, placard applied, or container identification charts • Using the ERG, SDS, shipping papers with emergency response information, and other approved reference sources to identify hazardous materials/WMD and their potential fire, explosion, and health hazards 	3-1	HMA Skill #1

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<p>Initiate Protective Actions: 4.3.1</p> <ul style="list-style-type: none"> Isolate the hazard area and deny entry at a hazardous materials/WMD incident, given a hazardous materials/WMD incident, policies and procedures, and approved reference sources, so that the hazard area is isolated and secured, personal safety procedures are followed, hazards are avoided or minimized, and additional people are not exposed to further harm. Recognizing precautions for protecting responders and the public Identifying isolation areas, denying entry, and avoiding minimizing hazards 	<p>3-2</p>	<p>HMA Skill #1</p>
<p>Notification: 4.4.1</p> <ul style="list-style-type: none"> Initiate required notifications at a hazardous materials/WMD incident, given a hazardous materials/WMD incident, policies and procedures, and approved communications equipment, so that the notification process is initiated and the necessary information is communicated. Operating approved communications equipment and communicating in accordance with policies and procedures 	<p>3-3</p>	<p>HMA Skill #1</p>

IFSTA *Hazardous Materials for First Responders*, 5th Edition – Skill Sheets, in numerical order:
 3-1, 3-2, 3-3

PCC *Hazardous Materials Awareness and Operations Level Responder Skills Booklet*, 2019 Edition – Skill Sheets in numerical order:
 HMA #1

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Haz Mat Awareness

Skill Assessment Sheet

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HMA Skill Sheet #1: Recognize & Identify, Initiate Protective Actions, & Initiate Notification Process

Portland Community College Awareness Level

Competency: NFPA 1072-2017, Sections 4.2.1, 4.3.1, 4.4.1

Reference: IFSTA *Hazardous Materials For First Responders*®, 5th Edition
DOT, *Emergency Response Guidebook*, 2016 edition.

Required Candidate Equipment: PPE suitable for the weather conditions.

Required Instructor Equipment: DOT Emergency Response Guidebook, Safety Data Sheets (SDS), shipping papers, or other approved references portable radios, scene isolation equipment.

Read To Candidate:

At this station, you will recognize and identify the hazardous materials/WMD, isolate the hazard area and deny entry, and initiate required notifications. You will be given approved reference sources.

You are not required to wear chemical protective clothing or self-contained breathing apparatus (SCBA). All actions shall be performed from safe positions. Entry into the hazard zone will be deemed a safety violation and you will be considered to have failed.

I will function as the telecommunicator (communications center person). If you are unable to isolate the area due to distance restriction at the testing site, you shall communicate the information to me (the evaluator) and I will give you directions.

To pass this station, you must successfully complete 100% of the critical steps (steps in **BOLD**).

--OVER--

P-Pass / F-Fail

1st Attempt 2nd attempt

- | | | |
|---------------------------|---------------------------|---|
| <p>_____</p> <p>_____</p> | <p>_____</p> <p>_____</p> | <p>1. Recognized indicators to the presence of hazardous materials/WMD.</p> <p>2. Identified hazardous materials/WMD by: (Must use at least <u>ONE</u> of the following)</p> <p style="padding-left: 20px;">Name</p> <p style="padding-left: 20px;">UN/NA Identification Number</p> <p style="padding-left: 20px;">Placard</p> <p style="padding-left: 20px;">Container identification chart</p> |
| <p>_____</p> | <p>_____</p> | <p>3. Used ERG, SDS, shipping papers, and/or other approved reference sources, to identify hazardous materials/WMD and its potential for fire, explosion and health hazards.</p> |
| <p>_____</p> | <p>_____</p> | <p>4. Safely isolated the hazard area and denied entry at a hazardous materials/WMD incident so hazards were avoided or minimized and additional people were not exposed by performing the following actions:</p> <p style="padding-left: 20px;"><input type="checkbox"/> Recognized precautions for protecting responders and the public</p> <p style="padding-left: 20px;"><input type="checkbox"/> Identified isolation areas</p> <p style="padding-left: 20px;"><input type="checkbox"/> Denied entry</p> <p style="padding-left: 20px;"><input type="checkbox"/> Avoided or minimized hazards</p> |
| <p>_____</p> | <p>_____</p> | <p>5. Initiated required notifications and communicated necessary information at a hazardous materials/WMD incident by: (Must meet both requirements)</p> <p style="padding-left: 20px;">Operating approved communications equipment</p> <p style="padding-left: 20px;">Communicating in accordance with policies and procedures</p> |

Candidate's Name: _____ Station: P _____ F _____
1st Attempt 2nd attempt

Evaluator's Signature: _____