

Pro Board Assessment Methodology Matrices for NFPA 472

NFPA 472 - HazMat Awareness - 2013 Edition

INSTRUCTIONS: In the column titled 'Cognitive/Written Test' place the number of questions from the Test Bank that are used to evaluate the applicable JPR, RK, RS, or objective. In the column titled 'Manipulative/Skills Station' identify the skill sheets that are used to evaluate the applicable JPR, RS, or objective. When the Portfolio or Projects method is used to evaluate a particular JPR, RK, RS, or objective, identify the applicable section in the appropriate column and provide the procedures to be used as outlined in the NBFSPQ Operational Procedures, COA-5. Evaluation methods that are not cognitive, manipulative, portfolio, or project based should be identified in the 'Other' column.

OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
4.2.1	Detecting the Presence of Hazardous Materials					Chapter 30 (p 902-903)
4.2.1(1)	definition of hazardous materials and WMD					Chapter 28 (p 868-869)
4.2.1(2)	hazard classes					Chapter 31 (p 924)
4.2.1(3)	primary hazards					Chapter 31 (p 924)
4.2.1(4)	difference between hazardous materials incidents and other emergencies					Chapter 28 (p 873-874)
4.2.1(5)	typical occupancies and locations					Chapter 30 (p 902)
4.2.1(6)	typical container shapes					Chapter 30 (p 903-916)
4.2.1(7)	facility and transportation markings and colors					Chapter 30 (p 903-916)
4.2.1(8)	NFPA 704					Chapter 30 (p 912-913)
4.2.1(9)	placards and labels					Chapter 30 (p 910)
4.2.1(10)	information on material safety data sheets					Chapter 30 (p 914)
4.2.1(11)	examples of clues					Chapter 30 (p 903)
4.2.1(12)	limitations of using the senses					Chapter 30 (p 903)
4.2.1(13)	four types of locations					Chapter 30 (p 902)
4.2.1(14)	difference between a chemical and a biological incident					Chapter 29 (p 888-894)
4.2.1(15)	indicators of possible criminal or terrorist activity involving chemical agents					Chapter 30 (p 916)
4.2.1(16)	indicators of possible criminal or terrorist activity involving biological agents					Chapter 30 (p 916)
4.2.1(17)	indicators of possible criminal or terrorist activity involving radiological agents					Chapter 30 (p 916)

OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
4.2.1(18)	indicators of possible criminal or terrorist activity involving illicit laboratories					Chapter 30 (p 916)
4.2.1(19)	indicators of possible criminal or terrorist activity involving explosives					Chapter 30 (p 916)
4.2.1(20)	indicators of secondary device					Chapter 30, 31 (p 916, 928-930)
4.2.2	Surveying the Hazardous Materials Incident from a safe location					Chapter 30 (p 910)
4.2.2(1)	determining the specific names					Chapter 30 (p 910-914)
4.2.2(2)	obtaining the names of, UN/NA identification numbers					Chapter 30 (p 910-914)
4.2.2(3)	obtaining the names of hazardous materials					Chapter 30 (p 910-914)
4.2.3	Collecting Hazard Information					Chapter 30 (p 914-915)
4.2.3(1)	determining the appropriate guide page					Chapter 30 (p 912)
4.2.3(2)	general types of hazards					Chapter 31 (p 924)
4.4.1	Initiating Protective Actions					Chapter 31 (p 924-926)
4.4.1(1)	location of both the local emergency response plan and the organization's					Chapter 31 (p 924-926)
4.4.1(2)	role of the first responder					Chapter 28 (p 870-871)
4.4.1(3)	basic precautions					Chapter 28 (p 873-874)
4.4.1(4)	identification of response information					Chapter 31 (p 924-925)
4.4.1(5)	identify the recommended personal protective equipment					Chapter 32 (p 936-953)
4.4.1(6)	identify the definitions					Chapter 32 (p 936-953)
4.4.1(7)	identify the shapes of recommended initial isolation and protective action zones					Chapter 32 (p 954-955)
4.4.1(8)	describe the difference between small and large spills					Chapter 32 (p 954-955)
4.4.1(9)	identify circumstances under which distances are used at a hazmat incident					Chapter 32 (p 954-955)
4.4.1(10)	describe the difference between the isolation distances and protective action distances					Chapter 31 (p 924-930)
4.4.1(11)	identify the techniques used to isolate the hazard area and deny entry					Chapter 32 (p 955)
4.4.1(12)	identify at least four specific actions necessary when an incident is suspected					Chapter 33 (p 962-963)
4.4.2	Initiating the Notification Process					Chapter 31 (p 924-926)

NFPA 472 - HazMat Operational - Core Competencies - 2013 Edition

INSTRUCTIONS: In the column titled 'Cognitive/Written Test' place the number of questions from the Test Bank that are used to evaluate the applicable JPR, RK, RS, or objective. In the column titled 'Manipulative/Skills Station' identify the skill sheets that are used to evaluate the applicable JPR, RS, or objective. When the Portfolio or Projects method is used to evaluate a particular JPR, RK, RS, or objective, identify the applicable section in the appropriate column and provide the procedures to be used as outlined in the NBFSPQ Operational Procedures, COA-5. Evaluation methods that are not cognitive, manipulative, portfolio, or project based should be identified in the 'Other' column.

OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
5.1.1.2	Awareness level					Chapter 28 (p 869–871)
5.2.1	survey the incident					Chapter 30 (p 902)
5.2.1.1	identify shapes of containers					Chapter 30 (p 903–910, 915–916)
5.2.1.1.1	identify each type of tank car					Chapter 30 (p 907–910)
5.2.1.1.2	identify each type of intermodal tank					Chapter 30 (p 907–910)
5.2.1.1.3	identify each type of cargo tank					Chapter 30 (p 906–908)
5.2.1.1.4	identify each type of storage tank					Chapter 30 (p 906–908)
5.2.1.1.5	identify each package by type					Chapter 30 (p 904–906)
5.2.1.1.6	identify each container/ package by type					Chapter 30 (p 903–904)
5.2.1.2	identify the markings that differentiate one container from another					Chapter 30 (p 904)
5.2.1.2.1	identify the vehicle or tank identification markings					Chapter 30 (p 907–910)
5.2.1.2.2	identify the markings indicating container size, product contained, and/or site identification numbers					Chapter 30 (p 903)
5.2.1.3	identify the name(s) of hazmats					Chapter 30 (p 904)
5.2.1.3.1	identify pipeline marker information					Chapter 30 (p 910)
5.2.1.3.2	identify pesticide label information					Chapter 30 (p 905)
5.2.1.3.3	identify radioactive material label information					Chapter 30 (p 915–916)
5.2.1.4	identify conditions surrounding a hazmat incident					Chapter 31 (p 925–926)
5.2.1.5	ways to verify information					Chapter 30 (p 914)
5.2.1.6	additional hazards associated with criminal or terrorist activities					Chapter 30 (p 916)
5.2.2	collect hazard and response information					Chapter 29, 30 (p 887, 911–915)
5.2.2(1)	definitions associated with the DOT hazard classes					Chapter 30 (p 911–912)
5.2.2(2)	ways to obtain a material safety data sheet					Chapter 30 (p 914)
5.2.2(3)	identify hazard and response information					Chapter 30 (p 914)
5.2.2(4)	Identify type, procedures, and information regarding CHEMTREC					Chapter 30 (p 915)
5.2.2(5)	methods of contacting the manufacturer					Chapter 30 (p 914)
5.2.2(6)	identify type of assistance available with respect to criminal or terrorist activities					Chapter 30 (p 915–916)

OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
5.2.2(7)	identify procedure for contacting local, state, and federal authorities					Chapter 30 (p 915–916)
5.2.2(8)	describe properties or radioactive materials					Chapter 29 (p 886–887)
5.2.3	Predicting the Behavior of a Material and Its Container					Chapter 29 (p 880–894)
5.2.3(1)	interpret the hazard and response information					Chapter 29 (p 894)
5.2.3(1)(a)	significance of chemical and physical properties on behavior of the container and/or its contents					Chapter 29 (p 880–885)
5.2.3(1)(b)	differences between terms					Chapter 29 (p 880–894)
5.2.3(2)	types of stress					Chapter 29 (p 880–885)
5.2.3(3)	ways in which containers can breach					Chapter 29 (p 880–885)
5.2.3(4)	ways in which containers can release their contents					Chapter 29 (p 880–885)
5.2.3(5)	dispersion patterns					Chapter 29 (p 880–885)
5.2.3(6)	time frames for predicting the length of time that exposures					Chapter 29 (p 894)
5.2.3(7)	health and physical hazards					Chapter 29 (p 885)
5.2.3(8)	health hazards					Chapter 29 (p 885)
5.2.3(9)	warfare agents					Chapter 29 (p 885)
5.2.4	Estimating the Potential Harm					Chapter 33 (p 962–964)
5.2.4(1)	resource for determining the size of an endangered area					Chapter 33 (p 962–964)
5.2.4(2)	number and type of exposures					Chapter 33 (p 962–964)
5.2.4(3)	resources available for determining the concentrations					Chapter 33 (p 962–964)
5.2.4(4)	factors for determining the extent of physical, health, and safety hazards					Chapter 33 (p 962–964)
5.2.4(5)	impact of time, distance and shielding					Chapter 33 (p 962–964)
5.3.1	Describing Response Objectives for Hazardous Materials Incidents					Chapter 31 (p 928–930)
5.3.1(1)	steps for determining the number of exposures					Chapter 31 (p 928–930)
5.3.1(2)	steps for determining defensive response objectives					Chapter 31 (p 926)
5.3.1(3)	assess risk to responder					Chapter 31 (p 928–930)
5.3.1(4)	assess potential for secondary attack					Chapter 31 (p 928–930)
5.3.2	Identifying Action Options					Chapter 31 (p 925–926)
5.3.2(1)	options to accomplish objectives					Chapter 31 (p 925–926)
5.3.2(2)	prioritization of emergency medical care					Chapter 31 (p 925–926)
5.3.3	Determining Suitability of Personal Protective Equipment					Chapter 32 (p 936–953)
5.3.3(1)	appropriate respiratory protection					Chapter 32 (p 937–953)

OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
5.3.3(2)	appropriate personal protective clothing					Chapter 32 (p 937–953)
5.3.4	Identifying Decontamination Issues					Chapter 34 (p 978–985)
5.3.4(1)	ways that personnel, personal protective equipment, apparatus, and tools and equipment become contaminated					Chapter 34 (p 978)
5.3.4(2)	potential for secondary contamination					Chapter 34 (p 978)
5.3.4(3)	importance and limitations of decontamination procedures					Chapter 34 (p 978–985)
5.3.4(4)	purpose of emergency decontamination procedures					Chapter 34 (p 978–979)
5.3.4(5)	factors to be considered in emergency decontamination					Chapter 34 (p 978–979)
5.4.1	Establishing and Enforcing Scene Control Procedures					Chapter 32, 33 (p 954, 962–963)
5.4.1(1)	procedures for establishing scene control					Chapter 32 (p 954)
5.4.1(2)	criteria for determining the locations					Chapter 32 (p 954)
5.4.1(3)	basic techniques for the following protective actions					Chapter 33 (p 962–963)
5.4.1(4)	demonstrate emergency decontamination					Chapter 34 (p 978–979)
5.4.1(5)	identify safety items					Chapter 32, 33 (p 954, 962–963)
5.4.1(6)	procedures for ensuring coordinated communication					Chapter 32, 33 (p 954, 962–963)
5.4.2	Preserving Evidence					Chapter 33 (p 972)
5.4.3	Initiating ICS					Chapter 31 (p 924–925, 955)
5.4.3(1)	role of the first responder					Chapter 28 (p 870–874)
5.4.3(2)	levels of hazardous materials incidents					Chapter 31 (p 924)
5.4.3(3)	purpose, need, benefits, and elements of an incident management system					Chapter 31 (p 930)
5.4.3(4)	identify duties and responsibilities					Chapter 28 (p 870–874)
5.4.3(5)	considerations for determining location of command post					Chapter 31 (p 930)
5.4.3(6)	procedures for requesting additional resources					Chapter 31 (p 924–925, 955)
5.4.3(7)	role and objectives of other agencies					Chapter 31 (p 924–925, 955)
5.4.4	Using Personal Protective Equipment					Chapter 32 (p 950–953, 955)
5.4.4(1)	importance of the buddy system					Chapter 32 (p 955)
5.4.4(2)	importance of the backup personnel					Chapter 32 (p 955)
5.4.4(3)	identify safety precautions					Chapter 32 (p 950–953, 955)
5.4.4(4)	symptoms of heat and cold stress					Chapter 32 (p 950–953)

OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
5.4.4(5)	physical capabilities required for, and the limitations of, personnel working in the personal protective equipment					Chapter 32 (p 953)
5.4.4(6)	procedures for cleaning, disinfecting, and inspecting personal protective equipment					Chapter 34 (p 984)
5.4.4(7)	maintenance, testing, inspections, storage of PPE					Chapter 32 (p 950–953, 955)
5.5.1	Evaluating the Status of Planned Response					Chapter 33 (p 972)
5.5.1(1)	considerations for evaluating whether actions were effective					Chapter 33 (p 972)
5.5.1(2)	circumstances under which it would be prudent to withdraw					Chapter 33 (p 972)
5.5.2	Communicating the Status of the Planned Response					Chapter 31 (p 924–925)
5.5.2(1)	methods for communicating the status of the planned response					Chapter 31 (p 924–925)
5.5.2(2)	methods for immediate notification					Chapter 31 (p 924–925)

NFPA 472 - HazMat Operational w/Personal Protective Equipment Mission Specific Competencies - 2013 Edition

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OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
6.2.1.1.2	awareness level (Chapter 4), all core competencies at the operations level (Chapter 5), and all competencies in this section.					Chapter 28, 29, 30, 31, 32, 33 (p 870–871, 880–894, 902–916, 924–925, 936–955, 962–963)
6.2.3.1	select PPE					Chapter 32 (p 936–955)
6.2.3.1(1)	Describe the types of protective clothing and equipment					Chapter 32 (p 936–955)
6.2.3.1(2)	Describe personal protective equipment options for hazards					Chapter 32 (p 936–955)
6.2.3.1(3)	Select personal protective equipment for mission-specific tasks at hazardous materials					Chapter 32 (p 936–955)
6.2.3.1(3)(a)	Describe terms and explain their impact and significance					Chapter 32 (p 936–955)
6.2.3.1(3)(b)	identify three indications of material degradation					Chapter 32 (p 936–955)
6.2.3.1(3)(c)	identify the different designs of vapor-protective and splash-protective clothing					Chapter 32 (p 939–940)
6.2.3.1(3)(d)	identify the relative advantages and disadvantages of heat exchange units					Chapter 32 (p 950–953)
6.2.3.1(3)(e)	identify physiological and psychological stresses					Chapter 32 (p 953)

OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
6.2.3.1(3)(f)	describe local procedures for technical decontamination					Reserved
6.2.4.1	Using Protective Clothing and Respiratory Protection					Chapter 32 (p 936–955)
6.2.4.1(1)	Describe at least three safety procedures					Chapter 32 (p 936–955)
6.2.4.1(2)	Describe at least three emergency procedures					Chapter 32 (p 936–955)
6.2.4.1(3)	Demonstrate the ability to don, work in, and doff personal protective equipment					Chapter 32 (p 938–949)
6.2.4.1(4)	Demonstrate local procedures					Reserved
6.2.4.1(5)	Describe the maintenance, testing, inspection, storage, and documentation procedures					Chapter 32 (p 936–955)
6.2.5.1	Reporting and Documenting the Incident					Chapter 31 (p 924–930)

NFPA 472 - HazMat Operational w/Product Control Mission Specific Competencies - 2013 Edition

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OBJECTIVE / JPR, RK, RS		COGNITIVE	MANIPULATIVE			
SECTION	ABBREVIATED TEXT	WRITTEN TEST	SKILLS STATION	PORTFOLIO	PROJECTS	OTHER
6.6.1.1.2	awareness level (Chapter 4), all core competencies at the operations level (Chapter 5), all mission-specific competencies for personal protective equipment (Section 6.2), and all competencies in this section					Chapter 28, 29, 30, 31, 32, 33 (p 870–871, 880–894, 902–916, 924–925, 936–955, 962–963)
6.6.3.1	identify control options					Chapter 33 (p 965–972)
6.6.3.1(1)	Identify the options to accomplish a given response objective					Chapter 33 (p 965–972)
6.6.3.1(2)	Identify the purpose for and the procedures					Chapter 33 (p 965–972)
6.6.3.2	select personal protective equipment					Chapter 32 (p 936–953)
6.6.4.1	perform control options					Chapter 33 (p 965–972)
6.6.4.1(1)	Using special purpose or hazard suppressing foams or agents					Chapter 33 (p 965–972)
6.6.4.1(2)	Identify the characteristics and applicability of Class B foams					Chapter 17 (p 575)
6.6.4.1(3)	demonstrate how to perform control activities					Chapter 33 (p 965–972)
6.6.4.1(4)	Identify location and describe use of emergency remote shutoff devices					Chapter 33 (p 971–972)
6.6.4.1(5)	Describe the use of emergency remote shutoff devices					Chapter 33 (p 971–972)
6.6.4.2	describe local procedures for going through the technical decontamination process					Reserved