FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-1 & 5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet : 5.1.2.1**
5-1.2 & 5-2.3 Predicting the Behavior of a Material and its Container **5.2.3**

Candidate: _____ **Date:** _____

SS#: _____

STANDARD 5.1.2.1 & 5.2.3 NFPA 472, 2002 edition	**TASK:** Given an incident involving a single hazardous material, the first responder at the operational level shall identify containers and materials involved, determine if a release has occurred and evaluate surrounding conditions. The first responder shall predict the likely behavior of the material and its container.

PERFORMANCE OUTCOME: The candidate will interpret the hazard and response for a known hazardous material and its container.

CONDITIONS: Given a scenario involving known hazardous materials in a container, interpret the hazard and response information obtained from the current edition of the North American Emergency Response Guidebook, material safety data sheets (MSDS), CHEMTREC/CANUTEC/SETIQ, and shipper/manufacturer contracts.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Identify the name(s) of hazardous chemicals and containers involved (from a safe distance upwind)				
2.	Locate chemicals in response resources provided (ERG)				
3.	Determine if structural firefighting equipment and SCBA provide appropriate protection for hazardous material involved				
4.	Determine potential hazards of materials involved				
5.	Evaluate surrounding conditions (isolate, deny access)				
6.	Predict likely behavior of hazardous material				
7.	Conduct risk/benefit analysis, determine associated risks and estimate potential harm				
8.	List response objectives based on information gathered				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Risks and Hazards: thermal, mechanical, or chemical stress, type of breach, release, dispersion pattern, length of contact, health and physical hazards, short term, medium term, long term, etc

Evaluator (Print & Sign)	Date	Candidate	Date
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.1.1A**

5.2.1.1 Surveying the Hazardous Materials Incident

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.1.1 NFPA 472, 2002 edition	**TASK:** Given product numbers and a variety of containers, the first responder will match the product with the proper container.

PERFORMANCE OUTCOME: The candidate will correctly match the products with its proper container.

CONDITIONS: Given 3 chemical products, an emergency response guidebook, and pictures of a variety of containers.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will properly match the 3 products with appropriate containers:				
1.	Product #1				
2.	Product #2				
3.	Product #3				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.1.1B**

5-2.1.1 Surveying the Hazardous Materials Incident

Candidate: _____ **Date:** _____

SS#: _____

STANDARD 5.2.1.1 NFPA 472, 2002 edition	**TASK:** Given examples of the following intermodal containers, shall identify each container by type: A. Non-pressure intermodal, B. Pressurized intermodal

PERFORMANCE OUTCOME: The candidate will correctly identify non-pressure and pressurized intermodal containers.

CONDITIONS: Given diagrams or pictures of different types of intermodal containers

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	Non-pressure intermodal containers				
2.	Pressurized intermodal containers				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.1.1C**

5.2.1.1 Surveying the Hazardous Materials Incident

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.1.1 NFPA 472, 2002 edition	**TASK:** Given diagrams or pictures of different types of tank cars, the first responder will identify the four types of tank cars.

PERFORMANCE OUTCOME: The candidate will identify these four types of tank cars: 1) Non-pressure tank car with expansion dome, 2) Non-pressure tank car without expansion dome, 3) Pressure tank car, 4) Cryogenic liquid tank car

CONDITIONS: Given diagrams or pictures of at least one of each type of tank car.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	Non-pressure tank cars with expansion domes				
2.	Non-pressure tank cars without expansion domes				
3.	Pressure tank cars				
4.	Cryogenic liquid tank cars				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.1.1D**

5.2.1.1 Surveying the Hazardous Materials Incident

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.1.1 NFPA 472, 2002 edition	**TASK:** Given diagrams or pictures of facility tanks, the first responder shall identify the following: 1) Non-pressure facility tank, 2) Pressure facility Tank, 3) Cryogenic facility tank

PERFORMANCE OUTCOME: The candidate will correctly identify all facility tanks presented

CONDITIONS: Given at least one picture or diagram of each of these types of facility tanks: 1) Non-pressure, 2) Pressure, 3) cryogenic

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	Non-pressure facility tanks				
2..	Pressure facility tanks				
3.	Cryogenic facility tanks				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.1.1E**

5.2.1.1 Surveying the Hazardous Materials Incident

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.1.1 NFPA 472, 2002 edition	**TASK:** Given diagrams or pictures of non-bulk packages, the first responder shall identify the following: 1) Bags, 2) Carboys, 3) Cylinders, 4) Drums

PERFORMANCE OUTCOME: The candidate will correctly identify all non-bulk packages presented

CONDITIONS: Given at least one picture or diagram of each of these types of non-bulk packages: 1) Bags, 2) Carboys, 3) Cylinders, 4) Drums

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	Bags				
2.	Carboys				
3.	Cylinders				
4.	Drums				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

_____

_____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.1.1F**

5-2.1.1 Surveying the Hazardous Materials Incident

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.1.1 NFPA 472, 2002 edition	**TASK:** Given pictures or diagrams of radioactive material containers, the first responder shall identify the following: 1) Type A, 2) Type B, 3) Industrial, 4) Excepted, 5) Strong, tight containers

PERFORMANCE OUTCOME: The candidate will correctly identify all radioactive material containers presented.

CONDITIONS: Given at least one picture or diagram of each of these types of radioactive material containers: 1) Type A, 2) Type B, 3) Industrial, 4) Excepted, 5) Strong, tight container

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	Type A radioactive material containers				
2.	Type B radioactive material containers				
3.	Industrial radioactive material containers				
4.	Excepted radioactive material containers				
5.	Strong, tight radioactive material containers				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.1.3**

5-2.1.3 Surveying the Hazard Materials Incident

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.1.3 NFPA 472, 2002 edition	**TASK:** Given a pesticide label, the first responder shall identify and give the significance of: 1) the name of the pesticide, 2) the signal word, 3) the EPA registration number (in the U.S.), 4) precautionary statement, 5) the hazard statement, 6) the active ingredient.

PERFORMANCE OUTCOME: The candidate shall identify the pieces of information on a pesticide label and match these to its significance in surveying the hazardous materials incident.

CONDITIONS: Given a pesticide label or copy of a pesticide label and a list of things to identify.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	The name of the pesticide				
2.	The name of the signal word				
3.	The EPA registration number				
4.	The name of the precautionary statement				
5.	The name of the hazard statement				
6.	The name of the active ingredient				
7.	Relay significance of the information gathered to evaluator				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.2**

5-2.2 Collecting Hazard and Response Information

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.2 NFPA 472, 2002 edition	**TASK:** Given a material safety data sheet, the first responder shall identify the following: 1) physical and chemical characteristics, 2) physical hazards of the material, 3) health hazards of the material, 4) signs and symptoms of the material, 5) routes of entry, 6) permissible exposure limits, 7) responsible party contact, 8) applicable control measures, 9) emergency first aid procedures, and 10) verbally identify 2 ways to obtain a MSDS in an emergency.

PERFORMANCE OUTCOME: The candidate will correctly give the following material from a material safety data sheet: 1) physical and chemical characteristics, 2) physical hazards of the material, 3) health hazards of the material, 4) signs and symptoms of the material, 5) routes of entry, 6) permissible exposure limits, 7) responsible party contact, 8) applicable control measures, 9) emergency first aid procedures, and 10) verbally identify 2 ways to obtain a MSDS in an emergency.

CONDITIONS: Given a material safety data sheet and a list of material to identify.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	Physical and chemical characteristics				
2.	Physical hazards of the chemical				
3.	Health hazards of the chemical				
4.	Routes of entry to the body				
5.	Permissible exposure limits of the chemical				
6.	The responsible party contact				
7.	Precautions for safe handling				
8.	Applicable control measures				
9.	The emergency first aid procedures for the chemical				
10.	Two (2) ways to obtain a MSDS in an emergency				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.4A**

5.2.4 Estimating the Potential Harm

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.4 A NFPA 472, 2002 edition	**TASK:** Given the dimensions of the endangered area and the surrounding conditions at a hazardous materials incident or radioactive materials incident, estimate the number and type of exposures within that endangered area.

PERFORMANCE OUTCOME: The candidate will estimate the number and type of exposures.

CONDITIONS: Given a chemical name, an emergency response guidebook, and a local map.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Determine and record the types of exposures				
2.	Estimate the number of exposures				
3.	Determine protective action and evacuation distances				
4.	Describe prioritization of exposures				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.4B**
5.2.4 Estimating the Potential Harm **5.4.3**

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.4 B NFPA 472, 2002 edition	**TASK:** Given the dimensions of the endangered area, the exposures and the surrounding conditions at a hazardous materials incident identify potential harm and outcome and describe emergency medical care and removal of victim(s). The candidate will work in PPE.

PERFORMANCE OUTCOME: The candidate working in PPE will identify potential harm and estimate potential outcome within endangered area. The candidate will demonstrate prioritization of emergency medical care and removal of victim(s).

CONDITIONS: Given a chemical name requiring PPE, an emergency response guidebook, conscious/non-ambulatory patient(s), and dimensions of endangered area.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Identify the need for imminent peril rescue				
2.	Determine if specialized protective equipment needed for the incident				
3.	Properly don appropriate PPE required by incident				
4.	Approach and access victim to minimize exposure and avoid contact with material				
5.	Remove victim(s) to refuge inside exclusion zone using approved rescue and drags or carries				
6.	Provide verbal report to EMS personnel				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-2 COMPETENCIES – ANALYZING THE INCIDENT **Evaluation Sheet: 5.2.4C**

5.2.4 Estimating the Potential Harm

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.2.4 C NFPA 472, 2002 edition	**TASK:** Given the appropriate material and conditions, the first responder shall determine the evacuation area for the hazardous material condition presented.

PERFORMANCE OUTCOME: The candidate shall determine the appropriate evacuation area on the area map provided.

CONDITIONS: Given a scenario involving known hazardous materials in a container with UN number, the current edition of the North American Emergency Response Guidebook, a vicinity area map and the weather conditions.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Locate the materials in the response resources provided (ERG)				
2.	Determine potential hazards of materials involved.				
3.	Based on the scenario, determine the appropriate evacuation area on the map.				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	Date	Candidate	Date
Re-Test Evaluator	Date	Re-Test Candidate	Date

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.1A**
5.4.1 Establishing and Enforcing Scene Control Procedures **5.4.3**

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.1 A NFPA 472, 2002 edition	**TASK:** Emergency Decontamination/Firefighter. Demonstrate the ability to perform emergency decontamination while working in PPE. The first responder at the operational level shall identify how to establish and enforce scene control, including control zones, emergency decontamination, and communications.

PERFORMANCE OUTCOME: The candidate at the operational level working in PPE shall be able to demonstrate the ability to perform emergency decontamination.

CONDITIONS: Wearing SCBA/FULL PPE and given fire line tape, and given scenarios for facility and/or transportation hazardous materials incidents.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Remove firefighter victim from contaminated area				
2.	Ensure victim is supplied with uncontaminated air or oxygen ensuring air supply is maintained				
3.	Determine correct decontamination procedure				
4.	Remove helmet (if worn) and wash victim with flooding quantities of water (water is used only if decontamination procedure calls for it)				
5.	If victim is wearing an SCBA, release the harness and remove SCBA leaving face piece in place				
6.	Remove contaminated clothing and PPE while being flushed ensuring no further contamination while continuing to wash				
7.	Remove victim to treatment area in support zone				
8.	Provide verbal report to EMS personnel				
9.	Self decontamination of rescuer				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

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Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.1B**
5-4.1 Establishing and Enforcing Scene Control Procedures **5.4.3**

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.1 B NFPA 472, 2002 edition	**TASK:** Emergency Decontamination/Contaminated Site worker. Demonstrate the ability to perform emergency decontamination. The first responder at the operational level while working in PPE shall identify how to establish and enforce scene control, including control zones, emergency decontamination, and communications.

PERFORMANCE OUTCOME: The candidate at the operational level shall be able to demonstrate the ability to perform emergency decontamination while wearing full personal protective gear and SCBA.

CONDITIONS: Given a simulated contaminated victim, a hose line, and a tarp if needed.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1	Remove victim from area of high contamination to area of refuge				
2.	Initiate flush/strip/flush emergency field decontamination procedure (after proper verification of the correct decontamination procedure to use)				
3.	Remove contaminated clothing while washing victim with hose stream				
4.	Identify need for emergency care of victim				
5.	Direct victim to treatment area to be evaluated by EMS personnel				
6.	Self decontamination of rescuer				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.3A**
5-4.3 Using Personal Protective Equipment

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.3 A NFPA 472, 2002 edition	**TASK:** Demonstrate the ability to don, work in, and doff personal protective equipment provided by the authority having jurisdiction.

PERFORMANCE OUTCOME: The candidate at the operational level shall be able to demonstrate the ability to don self-contained breathing apparatus.

CONDITIONS: Given SCBA and personal protective equipment.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Check air cylinder pressure, open cylinder valve, listen for operation of low air alarm, compare cylinder pressure with remote pressure gauge				
2.	Don SCBA, securing all straps in appropriate sequence				
3.	Don face piece, securing all straps in appropriate sequence, perform negative pressure check (seal) exhale to check exhalation valve operation				
4.	Attach regulator to face piece, or attach low pressure hose to regulator, initiate air flow, and perform positive pressure check (break face piece seal)				
5.	Activate and check PASS device				
6.	Hood and helmet in proper position, (no skin showing), then don gloves				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

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Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.3B**

5-4.3 Using Personal Protective Equipment

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.3 B NFPA 472, 2002 edition	**TASK:** Demonstrate the ability to don, work in, and doff personal protective equipment provided by the authority having jurisdiction.

PERFORMANCE OUTCOME: The candidate at the operational level shall be able to demonstrate the ability to doff self-contained breathing apparatus.

CONDITIONS: Given SCBA and personal protective equipment properly donned.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Deactivate Positive Pressure, if required				
2.	Close cylinder fully				
3.	Bleed off excess air; close remaining valves				
4.	Disconnect face piece from regulator				
5.	Remove face piece and buckles/straps properly				
6.	Doff backpack and harness				
7.	Gently lower unit to ground or case				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.4A**
5-4.4 Performing Defensive Control Actions **5.4.3, 5.4.4C**

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.4 A & 5.4.4C NFPA 472, 2002 edition	**TASK:** Foam OPS using the type of firefighting foam or vapor suppressing agent and foam equipment furnished by the authority having jurisdiction; demonstrate the effective application of the firefighting foam(s) or vapor suppressing agent(s) on a spill or fire involving hazardous materials.

PERFORMANCE OUTCOME: The candidate at the operational level working in PPE shall demonstrate defensive control actions set out in the plan.

CONDITIONS: Wearing SCBA/Full PPE and given a scenario, an attack line, a foam proportioning device, a selection of foam concentrate, and a water supply.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Select the appropriate foam concentrate and appropriate nozzle for the given fuel and conditions				
2.	Prepare the foam concentrate for the given fuel and conditions				
3.	Assemble the foam proportioning device with the foam concentrate				
4.	Adjust the foam proportioning device based on the selected foam concentrate				
5.	Assemble, position, and prepare the hose line for fire attack				
6.	Assemble, position, and prepare personnel for fire attack				
7.	Charge the hose line so that it produces a properly proportioned foam fire stream				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.4B**

5-4.4 Performing Defensive Control Actions

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.4 B NFPA 472, 2002 edition	**TASK:** Foam OPS using the type of firefighting foam or vapor suppressing agent and foam equipment furnished by the authority having jurisdiction; demonstrate the proper application of the firefighting foam(s) or vapor suppressing agent(s) on a spill or fire involving hazardous materials.

PERFORMANCE OUTCOME: The candidate at the operational level shall demonstrate defensive control actions set out in the plan.

CONDITIONS: Wearing SCBA/Full PPE and given a live fire or simulated scenario and an assembled foam fire stream.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Prepare personnel, place attack line in position upwind, and check nozzle for proper production of foam solution				
2.	Coordinate the attack team's advancement toward the fire so that a smooth and safe approach is maintained. Choose one:				
	a) Apply a foam blanket over the fuel's surface by using the Roll-on Method				
	b) Apply a foam blanket over the fuel's surface by using the Bank-Down Method				
	c) Apply a foam blanket over the fuel's surface by using the Rain-Down Method				
3.	Prevent re-ignition by maintaining a foam blanket				
4.	Coordinate the attack team's retreat so that the hazard is faced until the entire team reaches a safe haven				
5.	Maintained the personal safety of all attack team members				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.4 D**

5-4.4 Performing Defensive Control Actions

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.4 D NFPA 472, 2002 edition	**TASK:** Foam OPS using the type of firefighting foam or vapor suppressing agent and foam equipment furnished by the authority having jurisdiction, demonstrate the proper application of the firefighting foam(s) or vapor suppressing agent(s) on a spill or fire involving hazardous material.

PERFORMANCE OUTCOME: The candidate at the operational level, shall demonstrate defensive control actions set out in the plan.

CONDITIONS: Wearing SCBA/Full PPE and given a live fire or simulated scenario and equipment for foam:

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Identify percentage of foam concentrate to use, connect eductor to hose line				
2.	Place eductor in concentrate can				
3.	Select appropriate setting on eductor				
4.	Open nozzle, apply away from fire or spill until finished foam reaches nozzle				
5.	Apply finished foam, from front of fire/spill working foam blanket back onto fire/spill				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.4E**

5-4.4 Performing Defensive Control Actions

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.4 E NFPA 472, 2002 edition	**TASK:** Demonstrate how to perform the following defensive control activities: Absorption, Damming, Diking, Dilution, Diversion, Retention, Vapor Dispersion, and Vapor Suppression.

PERFORMANCE OUTCOME: The candidate at the operational level shall demonstrate defensive control actions set out in the plan.

CONDITIONS: Wearing SCBA/Full PPE and given the appropriate tools and equipment (i.e., shovels, plastic, etc.).

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	**Damming/Diking/Absorption: Choose A, B or C below:**				
A.	Construct a retention pond				
B.	Construct a "V" dike or circle dike				
C.	Apply absorbent pads or booms				
	For A, B or C chosen above:				
2.	Select and correctly utilize proper retention equipment				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

_____

_____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE **Evaluation Sheet: 5.4.4F**

5-4.4 Performing Defensive Control Actions

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.4 F NFPA 472, 2002 edition	**TASK:** Demonstrate how to perform the following defensive control activities: Absorption, Damming, Diking, Dilution, Diversion, Retention, Vapor Dispersion, and Vapor Suppression.

PERFORMANCE OUTCOME: The candidate at the operational level shall demonstrate defensive control actions set out in the plan.

CONDITIONS: Wearing SCBA/Full PPE and given the appropriate tools and equipment (i.e., shovels, plastic, etc.).

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	Vapor Dispersion Techniques/Dilution Methods				
1.	Use nozzle on fog setting to disperse simulated vapor				
2.	Use hose line to apply water to dilute simulated chemical				
3.	Demonstrate knowledge of vapor suppression by identifying the need for foam				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

_____

_____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**

FIRE PROTECTION BUREAU
HAZARDOUS MATERIAL OPERATIONS

5-4 COMPETENCIES – IMPLEMENTING THE PLANNED RESPONSE Evaluation Sheet: 5.4.4G
5.4.4 Performing Defensive Control Actions

Candidate: _____ **Date:** _____

SS#: _____

STANDARD: 5.4.4 NFPA 472, 2002 edition	**TASK:** Given an example of the following cargo tanks, shall identify the cargo tank and the location and use of the mechanical, hydraulic, and air emergency remote shutoff devices: 1) MC-306/DOT-406, 2) MC-331

PERFORMANCE OUTCOME: The candidate will identify the cargo tank and the location and use of the mechanical, hydraulic, and air emergency remote shutoff devices

CONDITIONS: Given pictures or diagrams of MC-306/DOT-406 and MC-331 cargo tanks.

NO.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
	The candidate will correctly identify the following:				
1.	MC-306/DOT-406 cargo tank.				
2.	MC-306/DOT-406 • Remote emergency valves are both (usually) mechanical. • Remote emergency valves are located both at the front and rear of the tank.				
3.	MC-331 cargo tank.				
4.	MC-331 • Has two remote methods of closure. • Both closures are required to operate by mechanical and thermal means.				
5.	MC-331 • Remote closures are located at the front of the tank and at the rear of the vehicle cargo tanks.				

RETEST APPROVED BY:	**RETEST EVALUATOR:**

Evaluator/Candidate Comments: _____

Evaluator (Print & Sign)	**Date**	**Candidate**	**Date**
Re-Test Evaluator	**Date**	**Re-Test Candidate**	**Date**