



# MABAS 3701

## HAZARDOUS MATERIALS TEAM

# TASK BOOK

MABAS 3701

Member's Name: \_\_\_\_\_

Dept#: \_\_\_\_\_

Fire Department: \_\_\_\_\_

Issue Date: \_\_\_\_\_

Completion Date: \_\_\_\_\_

## Hazardous Materials Team

### Purpose:

One goal of the Hazardous Materials Team task book is to ensure our Special Operations members are maintaining an acceptable level of competency with what is deemed to be typical Job Performance Requirements (JPR's) set forth by guidelines within NFPA 472 (Standard for Competence of Responders to Hazardous Materials / WMD Incidents) and NFPA 1072 (Standard for Hazardous Materials / WMD Emergency Response Personnel Professional Qualifications). The intent of this task book is to track competencies and identify shortfalls within the Hazardous Materials Team. This book will assist in future training initiatives, goals, and objectives as we continue to move forward with ensuring our responders meet a minimum standard within their specific certification levels.

### Requirements:

Upon receipt of this task book, each member will be responsible for completing all sections annually. As you will see, this task book identifies many different skill requirements for the Hazardous Materials Technician. The following requirements **must** be met:

- 100% completion is required for each section in which you hold a technician level certification in. Other sections may be completed however they are not required unless you hold a certification in those areas.
- Team members are responsible for the management of their task book. It is your responsibility to ensure the skills are signed off when completed.
- Once completed, the member is required to submit the task book to the Hazardous Materials Team Leader(s) or designated party for final signatures.
  - Failure to complete the task book in the allotted time frame will result in appropriate disciplinary action or remedial training and could be subject to removal from the 3701 Hazardous Materials Team.
  - Task book skills may be completed during Haz-Mat Team sanctioned training, station drills or qualified training to include state or federal training.
  - Skills may only be signed off by approved Haz-Mat Team Officers or designated Haz-Mat instructors.
  - A team member will not be considered deployable until a minimum level of skills have been validated by Team Leader(s).

Questions regarding the purpose of the task book or its content should be directed to the Hazardous Materials Team Leader(s).

## **TASK BOOK DEFINITIONS**

**“Defines”** - Team member can successfully provide a definition or common meaning for a said item, topic, or task.

Team member can successfully identify tools, equipment, resources, components, or other features pertinent to the task, skill, or operation.

**“Identifies”** -

**“Performs”** /

**“Demonstrates”** - Team member can successfully complete a skill or task as either an individual or while functioning as a team.

**“Assembles”** -

Team member shows competency in the assembly of a system, component, tool, or equipment that may be utilized while completing a task.

**“Exceptional”** -

Team member shows expert level knowledge or functions above what would be considered an average level of competency. Team member could be considered a subject matter expert in each task or skill.

**“Satisfactory”** -

Team member meets a competency level that is consistent with the successful completion of a JPR. Team member has an acceptable understanding of skills, tasks, and use of tools and equipment. Team member can complete tasks and skills with little direction.

**“Below Average”** - Team member does not meet a competency level consistent with the JPR. Team member is not able to complete skills or task. This rating requires the appropriate supporting documentation from the evaluator / instructor and may require remedial training.

**“JPR”** -

Job Performance Requirements. These are technician level skills identified within NFPA 472. Successful completion of identified JPR's are required in order to receive technician level certification in a specific area of hazardous materials.



**MABAS 3701**  
**Hazardous Materials Team**  
**Annual Certification**



#	NFPA 472 Hazmat Technician Competencies	<b>EVALUATOR:</b> Initial & date upon completion of task
1	Detection, Monitoring, and Sampling	
2	Hazard and Response Information Collection and Interpretation	
3	Assessing Container Condition	
4	Predicting Behavior	
5	Estimating Outcomes	
6	Response Objectives and Options	
7	Personnel Protective Equipment (PPE) Selection	
8	Decontamination Method Selection	
9	Action Plan Development	
10	Performing Assigned IMS/ICS Duties	
11	Personal Protective Equipment Use	
12	Performing Control Functions	

13	Controlling Container Leaks	
14	Overpacking Nonbulk and Radioactive Materials	
15	Liquid Product Transfer	
16	Mass Decontamination	
17	Technical Decontamination	
18	Evaluating and Reporting Progress	
19	Terminating the Incident	
20	Other:	
<b>#</b>	<b>NFPA 472 Hazmat Incident Commander Competencies REQUIRED OF TEAM LEADER(S) / HAZ-MAT OFFICERS &amp; EVALUATORS</b>	<b>EVALUATOR:</b> Initial & date upon completion of task
1	Analyze the Incident	
2	Plan the Response	
3	Implement the Incident Action Plan (IAP)	
4	Evaluate Progress and Adjust IAP	
5	Estimating Outcomes	
6	Other:	

## HAZARDOUS MATERIALS TECHNICIAN COMPETENCIES

NFPA 472-2018 Ed; NFPA 1072-2017 Ed; MIOSHA Part 432-2014 Ed

Hazardous materials technicians shall have received not less than 24 hours of training equal to the first responder operations level plus the below competencies:

<b>1. Detection, Monitoring, and Sampling</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.2.1	Selecting and using PPE; determining radiation dose rates from radioactive material labels; using each of the following types of detection, monitoring, and sampling equipment [colorimetrics (e.g., tubes, chips, papers, strips, reagents); electrochemical cells (e.g., toxic gas sensors), flammable gas/LEL, noncontact thermal detection device, oxygen concentration, photoionization detector (PID), and radiation detection and monitoring devices] to either classify hazardous materials by basic hazard categories, verify the presence of hazardous materials or determine the concentration of hazardous materials; collect samples of gases, liquids, and solids; monitoring, reading, interpreting, recording, and communicating readings from detection, monitoring, and sampling equipment according to the manufacturers' specifications and recommendations; and completing required reports and supporting documentation.
MIOSHA 432 Rule 33, 4	(b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (i) Understanding basic chemical and toxicological terminology and behavior.
Training/ Instructor	
<b>2. Hazard and Response Information Collection and Interpretation</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.2.2	Collecting and interpreting hazard and response information; identifying signs and symptoms of exposure to hazardous materials/WMD, including target organ effects of exposure to hazardous materials/WMD; and determining radiation exposure rates from labels attached to radioactive materials containers.
MIOSHA 432 Rule 33, 4	(b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (i) Understanding basic chemical and toxicological terminology and behavior
Training/ Instructor	
<b>3. Assessing Container Condition</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.2.3	Assessing the condition of the container and its closures, identifying the type of damage and level of risk associated with the damage, identifying stress(es) on the container, and communicating the condition of the container and its closures and the level of risk associated with that condition.
MIOSHA 432 Rule 33, 4	(e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit.
Training / Instructor	

<b>4. Predicting Behavior</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.2.4	Using the process to predict likely behavior of materials and their containers when multiple materials are involved, identifying reactivity issues associated with mixing various hazardous materials, and communicating the predicted behavior.
MIOSHA 432 Rule 33, 4	(e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit. (i) Understanding basic chemical and toxicological terminology and behavior.
Training / Instructor	
<b>5. Estimating Outcomes</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.2.5	Using approved resources and equipment; determining concentrations of materials within the endangered area; identifying the physical, health, and safety hazards within the endangered area; identifying the areas of potential harm in the endangered area; estimating the potential outcomes in the endangered area; and communicating the potential outcomes.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit. (i) Understanding basic chemical and toxicological terminology and behavior.
Training / Instructor	
<b>6. Response Objectives and Options</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.3.1	Developing response objectives for a hazardous materials incident and identifying action options for each response objective.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (c) Being able to function within an assigned role in the incident command system. (e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit. (i) Understanding basic chemical and toxicological terminology and behavior.
Training / Instructor	

## 7. Personnel Protective Equipment (PPE) Selection

Standard	Skill
NFPA 472 7.3.2	Selecting PPE ensemble for a specified response option based on all hazards identified and determining the effectiveness of protective clothing based on its uses and limitations.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician. (e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit. (i) Understanding basic chemical and toxicological terminology and behavior.
Training / Instructor	

## 8. Decontamination Method Selection

Standard	Skill
NFPA 472 7.3.3	Selecting decontamination procedures (operations and methods) and identifying the equipment required to implement decontamination procedure (operations and methods).
MIOSHA 432 Rule 33, 4	(e) Understanding hazard and risk assessment techniques. (g) Understanding and implementing decontamination procedures.
Training / Instructor	

## 9. Action Plan Development

Standard	Skill
NFPA 472 7.3.4	Preparing an action plan, identifying site safety and control components, identifying points for a safety briefing, identifying pre-entry tasks, identifying atmospheric and physical safety hazards when incident involves a confined space, and preserving and collecting legal evidence.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (c) Being able to function within an assigned role in the incident command system.
Training / Instructor	



<b>10. Performing Assigned IMS/ICS Duties</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.1	Performing the duties and responsibilities of an assigned function in the hazardous materials branch or group organization; and communicating observations to hazardous materials branch director/group supervisor, ICS operations section chief, or IC.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (c) Being able to function within an assigned role in the incident command system.
Training / Instructor	
<b>11. Personal Protective Equipment Use</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.2	Inspecting, donning, working in, going through technical decontamination while wearing PPE; and completing required reports and supporting documents for the use of PPE.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician.
Training / Instructor	
<b>12. Performing Control Functions</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.3	Selecting and using PPE, selecting and using approved control agents and equipment on a release involving hazardous materials/WMD, using container control valves and remote emergency shutoff devices, performing product control techniques, inspecting and maintaining tools and equipment; and completing required and supporting documentation for product control operations.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (c) Being able to function within an assigned role in the incident command system. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician. (e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit. (g) Understanding and implementing decontamination procedures. (h) Understanding termination procedures.
Training / Instructor	

<b>13. Controlling Container Leaks</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.3.2	Selecting and using PPE, selecting and using approved control agents and equipment; controlling leaks on containers and their closures (patching, plugging, sealing closures, remote valve shutoff, closing valves, repositioning container; replacing missing plugs, and tightening loose fittings); decontaminating tools and equipment; inspecting and maintaining tools and equipment; and requirements for reporting and documenting product control operations.
MIOSHA 432 Rule 33, 4	(e) Understanding hazard and risk assessment techniques. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit.
Training / Instructor	
<b>14. Overpacking Nonbulk and Radioactive Materials</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.3.3	Selecting and using PPE; placing a damaged or leaking nonbulk materials container into the overpack container; placing a damaged or leaking radioactive materials container into an overpack container; following safety procedures and minimizing and avoiding hazards; decontaminating tools and equipment; inspecting and maintaining tools and equipment; and completing requirements for reporting and documenting product control operations.
MIOSHA 432 Rule 33, 4	(d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician. (e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit.
Training / Instructor	
<b>15. Liquid Product Transfer</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.3.4	Selecting and using PPE; identifying a compatible recovery container and transfer equipment; monitoring for hazards; grounding and bonding containers; transferring liquid product from a leaking container to a recovery container; suppressing vapors; decontaminating tools and equipment; inspecting and maintaining tools and equipment; and completing reports and supporting documentation for product control operations.
MIOSHA 432 Rule 33, 4	(b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician. (e) Understanding hazard and risk assessment techniques. (f) Being able to perform advance control, containment, and confinement operations within the capabilities of the resources and personal protective equipment available to the unit.
Training / Instructor	

<b>16. Mass Decontamination</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.4.1	Selecting and using suitable PPE, selecting a mass decontamination procedure to minimize the hazard, setting up and implementing mass decontamination operations for ambulatory and nonambulatory victims, evaluating the effectiveness of the mass decontamination process, and completing reporting and documentation requirements.
MIOSHA 432 Rule 33, 4	(e) Understanding hazard and risk assessment techniques. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician. (g) Understanding and implementing decontamination procedures.
Training / Instructor	
<b>17. Technical Decontamination</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.4.4.1	Selecting and using PPE, selecting a technical decontamination procedure to minimize the hazard, setting up and implementing technical decontamination operations, evaluating the effectiveness of the technical decontamination procedure, and completing required reports and supporting documentation for technical decontamination operations.
MIOSHA 432 Rule 33, 4	(e) Understanding hazard and risk assessment techniques. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician. (g) Understanding and implementing decontamination procedures.
Training / Instructor	
<b>18. Evaluating and Reporting Progress</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 7.5.1	Comparing predicted behavior of the material and its container to the actual behavior, determining effectiveness of response options and actions, communicating the status of response options and actions, and modifying the response options and actions based on the incident status review.
MIOSHA 432 Rule 33, 4	(b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (c) Being able to function within an assigned role in the incident command system. (d) Knowing how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician (e) Understanding hazard and risk assessment techniques. (i) Understanding basic chemical and toxicological terminology and behavior
Training / Instructor	

## 19. Terminating the Incident

Standard	Skill
NFPA 472 7.5.6	Communicating operational observations (incident information) at debriefings and critiques; and completing, forwarding, and filing required reports, records, and supporting documentation.
MIOSHA 432 Rule 33, 4	(a) Knowing how to implement the employer's emergency response plan. (c) Being able to function within an assigned role in the incident command system. (h) Understanding termination procedures.
Training / Instructor	

## HAZARDOUS MATERIALS INCIDENT COMMANDER COMPETENCIES

NFPA 472-2018 Ed; NFPA 1072-2017 Ed; MIOSHA Part 432-2014 Ed

Hazardous materials technicians shall have received not less than 24 hours of training equal to the first responder operations level plus the below competencies:

<b>1. Analyze the Incident</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 8.2	Assessing hazards and evaluating risks; written and verbal communication.
MIOSHA 432 Rule 33, 6	(b) Knowing the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment. (i) Understanding basic chemical and toxicological terminology and behavior.
Training	(a) Knowing and being able to implement the employer's incident command system. (b) Knowing how to implement the employer's emergency response plan. (c) Knowing and understanding the hazards and risks associated with employees who work in chemical protective clothing. (d) Knowing how to implement the local emergency response plan
Training / Instructor	
<b>2. Plan the Response</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 8.3	Approving the personal protective equipment for response options, developing a plan of action, and ability to use verbal and written communication.
MIOSHA 432 Rule 33, 6	(a) Knowing and being able to implement the employer's incident command system. (b) Knowing how to implement the employer's emergency response plan. (c) Knowing and understanding the hazards and risks associated with employees who work in chemical protective clothing. (d) Knowing how to implement the local emergency response plan. (f) Knowing and understanding the importance of decontamination procedures.
Training / Instructor	
<b>3. Implement the Incident Action Plan (IAP)</b>	
<b>Standard</b>	<b>Skill</b>
NFPA 472 8.4.1	Implementing IMS/ICS including unified command as necessary, assigning and directing resources, and establishing information transfer focal point.
MIOSHA 432 Rule 33, 6	(a) Knowing and being able to implement the employer's incident command system. (b) Knowing how to implement the employer's emergency response plan. (d) Knowing how to implement the local emergency response plan.
Training / Instructor	

#### 4. Evaluate Progress and Adjust IAP

Standard	Skill
NFPA 472 8.5	Comparing predicted behavior of the material and its container to the actual behavior, determining effectiveness of action options and actions, and modifying the IAP when needed.
MIOSHA 432 Rule 33, 6	(a) Knowing and being able to implement the employer's incident command system. (b) Knowing how to implement the employer's emergency response plan. (c) Knowing and understanding the hazards and risks associated with employees who work in chemical protective clothing. (d) Knowing how to implement the local emergency response plan. (e) Being aware of the state emergency response plan and the federal regional response team. (f) Knowing and understanding the importance of decontamination procedures.
Training / Instructor	

#### 5. Estimating Outcomes

Standard	Skill
NFPA 472 8.6	Transferring command; participating in a debriefing, post-incident analysis, and critiques; and completing required reports and supporting documentation for overall incident response operations.
MIOSHA 432 Rule 33, 6	(a) Knowing and being able to implement the employer's incident command system. (b) Knowing how to implement the employer's emergency response plan. (c) Knowing and understanding the hazards and risks associated with employees who work in chemical protective clothing. (d) Knowing how to implement the local emergency response plan. (e) Being aware of the state emergency response plan and the federal regional response team. (f) Knowing and understanding the importance of decontamination procedures.
Training / Instructor	