Course Title: Hazardous Materials Technician A

Course Duration: 45 hours

Program: Hazardous Materials Program

Course Prerequisites: Hazardous Materials Operations

Course Description: The Hazardous Materials Technician ‘A’ course provides those who are or will be operating as a member of any of the Illinois Statewide WMD/Hazmat teams (fire department or law enforcement agency) the essential skills needed to evaluate and work defensively or offensively at an incident involving the release of hazardous materials. The objectives of the course are to teach participants: to classify, identify, and verify known and unknown material by using field survey instruments and equipment; to select and use the proper chemical protective equipment provided to the hazardous materials Technician; to understand hazard and risk assessment techniques for Hazmat and CBRNE environments; to be able to perform advanced control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available; and to develop action plans within the parameters of the State plan for statewide response to WMD events.

Course Requirements and/or Recommendations: These can be divided into three categories: those completed prior to arriving in class (Pre-Course Work), those completed during class, such as homework assignments and quizzes (Course Work), and requirements completed after class but prior to receiving a certificate of completion. (Post-Course Work)

Summary of Directions
Pre-Course Work: Hazmat Technician A Online Step 1:
Review Tech A Chemical and Physical Terms
Review Completed Site Safety Plan
View 4 videos (A kit, B kit, C kit, and Midland Kit)

Course Work: Complete all reading, homework, and practical assignments prior to the Final Exam.

Post-Course Work: None
Course Policies:

**Attendance Policy:** IFSI requires students to attend (100%) or make up all course content that leads to certification. Students are expected to attend on time and to remain in class for the duration of the course. Students MUST COMPLETE all portions of a certification course, both classroom and practical, to be eligible to receive their certification.

If a student misses any portion of class with an accumulated absence of 20% or less of scheduled class time, it will be the student’s responsibility to arrange the make-up of the missed course content with the instructor(s) or program manager. The student must make up the specific course content that s/he missed, not just the hours. Make-ups are limited to 20% of scheduled class time. Make-ups must be documented on the class roster. If a student’s absence is greater than 20% refer to “True Emergences” section of the IFSI Examination Policy.

**Safety Policy:** Students shall understand and follow all instructions pertaining to operational safety, as stated by instructors or as written in course materials. Instructors and students shall be mindful of safety at all times. Conduct judged to be unsafe shall be grounds for dismissal from the course.

**Academic Integrity Policy:** IFSI has the responsibility for maintaining academic integrity so as to protect the quality of the education provided through its courses, and to protect those who depend upon our integrity. It is the responsibility of the student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Any violation of the code of conduct is grounds for immediate dismissal from the course.

**Grading Policy:** Decisions regarding certificates of course completion shall be made solely by the lead instructor of the course. All grading of exams shall be conducted by the Curriculum/Testing Office. All grading of practical exercises shall be based upon the standards set by the regulatory agency referenced in the course material and IFSI.

**American Disabilities Act:** As guaranteed in the Vocational Rehabilitation Act and in the American Disabilities Act, if any student needs special accommodations they are to notify their instructor and provide documentation as soon as possible so arrangements can be made to provide for the student’s needs. If arrangements cannot be made at the class site, the student will test at an alternative time and place where the special accommodations can be made.
Evaluation Strategy: Example: Students will be evaluated with an end of course exam, and performance evaluation checklist.

Course Content:

Module: 1
Title: Laws and Regulations
Terminal Learning Objective:
At the conclusion of this module, the student will explain the laws, regulations and standards that apply to hazardous materials/WMD incidents.

Module: 2
Title: Response Components
Terminal Learning Objective:
At the conclusion of this module, the student will explain the 5-step Isolate to Terminate process and how it affects the hazardous materials response.

Module: 3
Title: Chemical and Physical Properties
Terminal Learning Objective:
At the conclusion of this module, the student will apply chemical and physical properties of a material to predict how hazardous materials respond in different situations.

Module: 4
Title: Toxicology
Terminal Learning Objective:
At the conclusion of this module, the student will explain how hazardous materials enter the body and what their potential effects are.

Module: 5
Title: Collecting & Interpreting Hazard & Response Information
Terminal Learning Objective:
At the conclusion of this module, the student will utilize a minimum of three resources to collect and interpret information concerning a hazardous material.

Module: 6
Title: Personal Protective Equipment
Terminal Learning Objective:
At the conclusion of this module, the student will demonstrate the proper selection, use, and maintenance of all four EPA ensemble classifications.
Drill One – Suit Familiarization

Module:  7
Title: Recognition and Identification – Part I
Terminal Learning Objective:
At the conclusion of this module, the student will recognize different types of transportation containers and markings and determine the hazards associated with the materials transported or stored within the container.

Module:  8
Title: Recognition and Identification – Part II
Terminal Learning Objective:
At the conclusion of this module, the student will identify potential materials present at an incident, based on the type of pipeline or fixed facility container involved.

Module:  9
Title: Monitoring
Terminal Learning Objective:
At the conclusion of this module, the student will demonstrate the use of monitoring equipment available to the hazardous materials Technician.

Module:  10
Title: Container Behavior
Terminal Learning Objective:
At the conclusion of this module, the student will identify factors that determine how hazardous materials containers will behave during an incident and develop a strategy for a response based on the analysis of the container and it’s behavior.

Drill Two – Skill Stations in Level A

Module:  11
Title: Control Functions
Terminal Learning Objective:
At the conclusion of this module, the student will demonstrate performing control functions, available to the Technician, in support of the Incident Action Plan.
Module: 12
Title: Site Safety Plan
Terminal Learning Objective:
At the conclusion of this module, the student will demonstrate the completion of a Site Safety Plan.

Module: 13
Title: Incident Management System
Terminal Learning Objective:
At the conclusion of this module, the student will identify the positions that make up the Incident Management System and how to use IMS, Unified Command and NIMS at a hazardous materials/WMD incident.

Drill Three – Tech Level Skills in Level A

Module: 14
Title: Decontamination
Terminal Learning Objective:
At the conclusion of this module, the student will demonstrate proper selection, set-up, operation, and tear down of a decontamination line.

Drill Four – Decontamination Setup

Module: 15
Title: Terrorist & Other Criminal Activities
Terminal Learning Objective
At the conclusion of this module, the student will classify terrorist incidents into the five basic categories of Chemical, Biological, Radiological, Nuclear, and Explosive.

Module: 16
Title: Standard Operating Guidelines
Terminal Learning Objective:
At the conclusion of this module, the student will summarize key information that should be contained in Standard Operating Guidelines (SOG) for hazardous materials/WMD incidents.

Tabletop

Night Drill

Final Incident
References:


# Course Schedule

## DAY ONE

<table>
<thead>
<tr>
<th>Event</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation and Introductions</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Module 1: Laws and Regulations</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Module 2: Response Components</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Module 3: Chemical/Physical Properties</td>
<td>1 hour</td>
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<tr>
<td>Module 4: Toxicology</td>
<td>1 hour</td>
</tr>
<tr>
<td>Module 5: Collecting &amp; Interpreting</td>
<td>1 hour</td>
</tr>
<tr>
<td>Module 6: Personal Protective Equipment</td>
<td>1 hour</td>
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<tr>
<td><strong>Drill One: Suit Familiarization</strong></td>
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**Assignment:** Reading Assignment One – Due Day Two 0800

## DAY TWO

<table>
<thead>
<tr>
<th>Event</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Review Homework</td>
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<tr>
<td>Module 7: Recognition and Identification – Part I</td>
<td>1 hour and 15 min</td>
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<tr>
<td>Module 8: Recognition and Identification – Part II</td>
<td>1 hour</td>
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<tr>
<td>Module 9: Monitoring</td>
<td>1 hour and 30 min</td>
</tr>
<tr>
<td>Module 10: Container Behavior</td>
<td>1 hour</td>
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<tr>
<td><strong>Drill Two: Skill Stations in Level A</strong></td>
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**Assignment:** Reading Assignment Two – Due Day Three 0800
### DAY THREE

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<tr>
<td>Review Homework</td>
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<tr>
<td>Module 11: Control Functions</td>
<td>3 hours and 45 min</td>
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<tr>
<td>Module 12: Site Safety Plan</td>
<td>30 minutes</td>
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<tr>
<td>Module 13: Incident Management System</td>
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<tr>
<td><strong>Drill Three: Tech Level Skills in Level A</strong></td>
<td>3 hours and 30 min</td>
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**Assignment:** Reading Assignment Three – Due Day Four 0800

### DAY FOUR

<table>
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<tr>
<th>Event</th>
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<tbody>
<tr>
<td>Review Homework</td>
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<tr>
<td>Module 14: Decontamination</td>
<td>1 hour and 30 min</td>
</tr>
<tr>
<td><strong>Drill Four: Decontamination Setup</strong></td>
<td>30 minutes</td>
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<tr>
<td><strong>Science Activity</strong></td>
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<tr>
<td>Module 15: Terrorist and Other Criminal Activities</td>
<td>1 hour and 15 min</td>
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<tr>
<td>Module 16: Standard Operating Guidelines</td>
<td>1 hour</td>
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<tr>
<td><strong>Table Top Exercise</strong></td>
<td>2 hours</td>
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<tr>
<td><strong>Night Drill</strong></td>
<td>5 hours</td>
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### DAY FIVE

**Start Time:** 0800

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<th>Event</th>
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<tr>
<td>Final Incident</td>
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<tr>
<td>Review &amp; CEQ's</td>
<td>1 hour</td>
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<tr>
<td>Test</td>
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