NEW JERSEY STATE POLICE
HAZARDOUS MATERIAL
RESPONSE UNIT

Hazardous Materials Technician Course
Course # 06011
Outline:

Purpose

The purpose is to provide responders advanced training beyond the Operations level who during the course of their duties, will rapidly assess and correctly recognize the hazards, its potential and take both defensive and offensive actions to mitigate and who can perform in a command and control role at scene of a hazardous material release and or events.

Goal:

The goal of the Hazardous Materials Technicians course is to impart specific information to first response personnel beyond the Operations level. Provide standardize information and basic training in specific areas of protective equipment, monitoring devices, decontamination, hazard risk, tank trucks, rail cars, Attendees will explore the federal regulations and rules as established through OSHA, NJ PEOSH, EPA, and the State rules that apply to such a response.

LEVEL III HAZ-MAT TECHNICIAN (HMT) 06011 (80 hour)

This 80 hour course that provides Haz-Mat Team members with the basic knowledge and skills to take appropriate offensive or defensive action that would require level A & B protection at an incident. Instruction includes classroom and hands on exercises. **NOTE: Applicant must be a member of an established Haz-Mat Team or of a team that is forming.** Competency with SCBA is necessary. Students must also not have any medical problems which would preclude them from participating in hands on exercises.

-_____must have attended and completed the NJSP HMRU Awareness and Operations program

-_____must have attended an incident management course such that is recognized by the National Wildfire Coordinating Group

-_____attendance for all sessions and hands-on activity is required)

-_____must participate in all hands-on activities

-_____must receive a final grade average of 80% or better and on the final written exam

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Topics

- ☐ Introduction, definitions, training requirements and federal and state rules that apply.
- ☐ Basic Chemistry
- ☐ Specialized Protective Clothing
- ☐ Hazard Risk Assessment
- ☐ Basic Monitoring equipment
- ☐ Decontamination Procedures
- ☐ Medical Monitoring and Rehabilitation
- ☐ Confinement & Containment
- ☐ Air Monitoring Equipment
- ☐ CAMEO/MARPLOT/ALOHA , HOTSPOT software
- ☐ Termination, Recording keeping

Class Length

80 hours.

Facilities

- Approved classroom as defined in NJAC 5-73 et seq.
- Approved and competent instructor as defined by NJSP HMRU Training Guidelines
- Approved training props as determined by NJSP HMRU
  Software, Rail cars, Monitoring devices, PPE Medical Monitoring and reference manuals etc.

There will be a maximum of 30 students who will be divided into 4 squads. Each squad will have a student squad leader and assistant (chosen randomly at the beginning of the class). Each squad will have one instructor who will stay with them through the day to give them guidance through exercises and assist the lecturer.

Basic plan for each day's class will be:

1) Quiz (to review previous day's major points)
2) Lecture
3) Several short tabletops to practice new skills and review old ones
4) Hands-on activities in a shirt-sleeve environment to practice new skills
5) Mini exercise to place new skills in the context of a hazmat incident and to practice them in PPE
6) Termination / clean up
7) Post incident debriefing (in the classroom) and sign off on the student's personal log.

Each student will carry a personal logbook (which we supply). The log will have one (blank) note page and one log page per day. The log page will have space to record:

1) Initial Blood Pressure and temp
2) Description of weather conditions
3) Time spent in PPE that day
4) Time spent "on air" that day
5) Blood pressure and temp at end of day
6) Participation in post incident debriefing (Check off)
7) Signature of squad instructor and squad leader

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The logbook will be turned in at the end of the class and become part of the records we maintain from that class. The books will be signed by the student (attesting to it's accuracy) and will include a final page that will be signed by the appropriate instructor to certify demonstration of competencies for the student's final evaluation.

Day 1 Lecture: Introduction

Lecture: Chemistry
Tabletop: 1) Identifying product
2) Accessing chemical data from printed resources

Lecture: Hazard and Risk
Tabletop: 1) Identifying product
2) Accessing chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public

Day 2 Lecture: PPE
Tabletop: 1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident

Hands on skills: Suit up in typical PPE and go through the obstacle course while monitoring for hazardous atmospheres

Day 3 Lecture: Monitoring equipment
Tabletop: identify the equipment needed to monitor various HAZMAT scenes
Hands-on skills: four stations with monitoring equipment

Day 4 Lecture: Decontamination
Tabletop: Given scenarios
1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan the decon setup to deal with the responder's needs and one for victims in the hot zone

Hands on skills:
1) Incapacitated victim decon
2) Set up a typical responder decon line

Mini scenario: 1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan and set up the decon setup to deal with the responder's needs and one for victims in the hot zone
7) Send teams into the hot zone to monitor and assess the scene
8) Rescue victim then decon victim and recon team

Day 5 Lecture Control, Confinement, and Containment

Tabletop: 1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan the decon setup to deal with the responder's needs and one for victims in the hot zone.

Hands on skills: various containment methods will be practiced

Mini scenario:
1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan and set up the decon setup to deal with the responder's needs and one for victims in the hot zone
7) Send teams into the hot zone to monitor and assess the scene
8) Control the leak and contain the product
9) Decontaminate the entry teams

Lecture: Planning and record keeping

Tabletop: access information on local SARA sites, assess their hazards, and outline a plan to deal with likely incidents

Lecture: ICS and the place of the Technician

Tabletop: 1) Identifying product
2) Accessing chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Acting as the OSIC, write a plan to deal with the incident

Day 6 Lecture: Chlorine and compressed gases

Tabletop: given several scenarios
1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan the decon setup to deal with the responder's needs and one for victims in the hot zone

Hands on skills:
1) A Kit
2) B Kit
3) C Kit

Mini scenarios:
1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan and set up the decon setup to deal with the responder's needs and one for victims in the hot zone
7) Send teams into the hot zone to monitor and assess the scene
8) Stop the leaks with the appropriate equipment

Day 7 Lecture: Railcar Emergencies

Tabletop: Given several scenarios
1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan the decon setup to deal with the responder's needs and one for victims in the hot zone

Hands on skills:

1) Dealing with valve systems
2) Containing leaks
3) Placing patches
4) Fall protection
5) Placing C kit

Mini scenario:

1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan and set up the decon setup to deal with the responder's needs and one for victims in the hot zone
7) Send teams into the hot zone to monitor and assess the scene
8) Rescue victim then decon victim and recon team
9) Stop the leak and contain the product

Day 8 Lecture: Cargo Tank Trucks

Tabletop: Given a tank truck scenario

1) Identify the product
2) Access chemical data from printed resource
3) Assess the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan the decon setup to deal with the responder's needs and one for victims in the hot zone

Hands on: 1) Drilling to offload
2) Bonding and grounding

Mini exercise: transportation incidents:

1) Identify product
2) Access chemical data from printed resources
3) Assessing the physical and chemical hazards from a variety of incidents to the responder and to the public
4) Outline a plan to deal with the incident
5) Choose PPE to deal with the incident
6) Plan and set up the decon setup to deal with the responder's needs and one for victims in the hot zone
7) Send teams into the hot zone to monitor and assess the scene
8) Rescue victim then decon victim and recon team
9) Stop the leak and contain the product

Day 9 Lecture:

1) Explosives introduction
2) Hazards of pesticides (with tabletop)
3) General industry hazards (with fixed facility tabletop)

Demonstration of competencies: Given a scenario,

1) Choose and don proper PPE
2) Set up the proper decon and run two hot zone entrants through it
3) Set up the proper decon and run one incapacitated victim through it

Day 10

Written final exam
Demonstration of competencies

Grand scenario: the three squads will function as a command staff and two HAZMAT teams that support each other through mutual aid agree

History

In 1987 NJSP sought a grant to develop the first ever Hazardous Materials training program. Through this grant a training advisory groups of individuals from throughout NJ was assembled to examine and develop the entire training package. This group worked for several months and in June 1988, the first class pilot was held in Plainsboro, NJ. This class was revised based upon comments received and sequent classes moved to CIBA GIGE in Toms River, NJ. Upon 1994 the class moved to Middlesex Fire Academy and remains. In 1995 the locations expanded to Atlantic County Fire Academy and stopped operations at that location in 2000.