

CHANHASSEN FIRE DEPARTMENT FIREFIGHTER SKILLS



HAZARDOUS MATERIALS PRACTICAL STATIONS

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

HAZ-MAT- PRODUCT ID & SCENE OPS

Practical Station **ONE**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 471 3-3

CFD SOG 8.5.4, 9.8

The candidate must identify a given hazardous material. They should respond at the operational level ONLY. All safety hazards to personnel should be identified and precautions taken to reduce the risk of exposure. The candidate shall direct a team in a defensive operation on a hazardous materials scene.

PREPAREDNESS

- Identifies product(s) involved _____ 6
- Researched product(s) involved _____ 4
- Identifies primary hazard _____ FAIL
- Identifies secondary hazard _____ 4
- Identifies PPE including respiratory protection _____ FAIL
- Selects appropriate plan of action _____ 4
- Estimated speed of spill..... _____ 4
- Reviewed terrain... _____ 4
- Reviewed current weather and its effects..... _____ 4
- Predicts behavior of material(s)..... _____ 4
- Predicts behavior of container(s) _____ 4

OPERATION

- Establishes and enforces scene control procedures _____ 6
- Initiates an Incident Command System _____ FAIL
- Demonstrates control technique: absorption,
damming, diking, dilution, diversion, retention,
vapor dispersion, vapor suppression _____ 10
- Uses buddy system .. _____ 8
- Did not get into the chemical..... _____ 5
- Had backup control device . _____ 5
- Doffs PPE correctly _____ 5
- Evaluates effectiveness of operations _____ 6
- Describes circumstances requiring withdrawal _____ 4
- Communicates status of response to IC _____ 4
- Performs emergency decontamination ... _____ 5
- Identifies the potential secondary contamination _____ 4
- Maintains accountability _____ FAIL

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

AIR MONITORING- 4 Gas

Practical Station **TWO**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 471 4-5.1
CFD SOG 8.5.4, 9.8

The candidate, given hazardous material, must properly operate air monitoring equipment. They should respond at the operational level **ONLY**. All safety hazards to personnel should be identified and precautions taken to reduce the risk of exposure. The candidate shall assist a team in a defensive operation on a hazardous materials scene.

PREPAREDNESS

- Identifies product(s) involved _____ 6
- Researched product(s) involved _____ 4
- Identifies primary hazard _____ FAIL
- Identifies secondary hazard _____ 4
- Identifies PPE including respiratory protection _____ FAIL
- Selects appropriate plan of action _____ 4
- Estimated speed of spill..... _____ 4
- Reviewed terrain... _____ 4
- Reviewed current weather and its effects..... _____ 4
- Predicts behavior of material(s)..... _____ 4
- Predicts behavior of container(s) _____ 4

OPERATION

- Set up monitoring equipment. _____ FAIL
- Set up any sampling probes. _____ 5
- Identify the alarm settings for each sensor
 - LEL-10%..... _____ 5
 - O2- 19.5% & 22% _____ 5
 - CO- 35 PPM _____ 5
 - H2S- 10 PPM _____ 5
- Complete a proper fresh air set up. _____ FAIL
- Identify the Vapor Density for the product. _____ 5
- Monitor in the area where the vapor might be located. _____ FAIL
- Demonstrate the proper techniques for monitoring a room. _____ 5
- Log all readings. _____ 5
- Demonstrate the use of all buttons and their purpose. _____ 10
- Change the battery. _____ 5
- Demonstrate how to shut the unit down. _____ 4
- Demonstrate the proper cleaning and storage for the unit. _____ 3

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

AIR MONITORING- RAE PID

Practical Station **THREE**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 471 4-5.1
CFD SOG 8.5.4, 9.8

The candidate, given hazardous material, must properly operate air monitoring equipment. They should respond at the operational level **ONLY**. All safety hazards to personnel should be identified and precautions taken to reduce the risk of exposure. The candidate shall assist a team in a defensive operation on a hazardous materials scene.

PREPAREDNESS

- Identifies product(s) involved _____ 6
- Researched product(s) involved _____ 4
- Identifies primary hazard _____ FAIL
- Identifies secondary hazard _____ 4
- Identifies PPE including respiratory protection _____ FAIL
- Selects appropriate plan of action _____ 4
- Estimated speed of spill..... _____ 4
- Reviewed terrain... _____ 4
- Reviewed current weather and its effects..... _____ 4
- Predicts behavior of material(s)..... _____ 4
- Predicts behavior of container(s) _____ 4

OPERATION

- Set up monitoring equipment. _____ FAIL
- Set up any sampling probes. _____ 5
- Identify the chemical conversion for Isobutylene
 - Ammonia _____ 10
 - Xylene _____ 10
- Complete a proper fresh air set up. _____ FAIL
- Identify the Vapor Density for the product. _____ 5
- Monitor in the area where the vapor might be located. _____ FAIL
- Demonstrate the proper techniques for monitoring a room. _____ 5
- Log all readings. _____ 5
- Demonstrate the use of all buttons and their purpose. _____ 10
- Change the battery. _____ 5
- Demonstrate how to shut the unit down. _____ 4
- Demonstrate the proper cleaning and storage for the unit. _____ 3

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

AIR MONITORING- Drager Tubes & Chips

Practical Station **FOUR**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 471 4-5.1

CFD SOG 8.5.4, 9.8

The candidate, given hazardous material, must properly operate air monitoring equipment. They should respond at the operational level **ONLY**. All safety hazards to personnel should be identified and precautions taken to reduce the risk of exposure. The candidate shall assist a team in a defensive operation on a hazardous materials scene.

PREPAREDNESS

- Identifies product(s) involved _____ 6
- Researched product(s) involved _____ 4
- Identifies primary hazard _____ FAIL
- Identifies secondary hazard _____ 4
- Identifies PPE including respiratory protection _____ FAIL
- Selects appropriate plan of action _____ 4
- Estimated speed of spill..... _____ 4
- Reviewed terrain... _____ 4
- Reviewed current weather and its effects..... _____ 4
- Predicts behavior of material(s)..... _____ 4
- Predicts behavior of container(s) _____ 4

OPERATION

- Set up monitoring equipment. _____ FAIL
- Set up any sampling tubes or chips..... _____ 5
- Identify the following from the tube/ chip sheet
 - Tube/ chip reaction limits _____ 10
 - Sampling Time _____ 5
 - Number of strokes _____ 5
- Identify the Vapor Density for the product. _____ 5
- Monitor in the area where the vapor might be located. _____ FAIL
- Demonstrate the proper techniques for monitoring a room. _____ 5
- Log all readings. _____ 5
- Demonstrate the use of all buttons and their purpose. _____ 10
- Change the battery. _____ 5
- Demonstrate how to shut the unit down. _____ 4
- Demonstrate the proper cleaning and storage for the unit. _____ 3

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

OVERPACK DRUM- Nail Puncture

Practical Station **FIVE**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3.4

The candidate, given hazardous material, shall demonstrate the proper techniques on how to patch and overpack a leaking drum.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 20
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by rolling drum or getting hole in the vapor space _____ FAIL
- Patch the puncture hole _____ 10
- Properly place drum into overpack drum by accepted method _____ 20
- Upright overpack drum _____ 10
- Locate overpack drum out of spilled material _____ 10
- Notify entry team leader that the operation is complete _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

OVERPACK DRUM- Bung Leak

Practical Station **SIX**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3.4

The candidate, given hazardous material, shall demonstrate the proper techniques on how to control a bung leak on a drum.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 20
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by rolling drum or getting hole in the vapor space _____ FAIL
- Properly tighten the bung on the drum _____ 20
- Upright the drum _____ 20
- Locate drum out of spilled material _____ 10
- Notify entry team leader that the operation is complete _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

OVERPACK DRUM- Forklift Puncture

Practical Station **SEVEN**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3.4

The candidate, given hazardous material, shall demonstrate the proper techniques on how to stop a large puncture and overpack the leaking drum.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 20
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by rolling drum or getting hole in the vapor space _____ FAIL
- Patch the puncture hole _____ 10
- Properly place drum into overpack drum by accepted method _____ 20
- Upright overpack drum _____ 10
- Locate overpack drum out of spilled material _____ 10
- Notify entry team leader that the operation is complete _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

CHLORINE A-KIT- SIDE PATCH

Practical Station **EIGHT**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3.1, 4-3.2, A-4-3.1, A-4-3.2

The candidate, given hazardous material, shall demonstrate the proper techniques on how to apply an A-kit for a leaking 150lb Chlorine cylinder.

ALL actions shall be in accordance with the kits manufacturers specifications/
reccomendations.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 10
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by actuating a valve if possible _____ 15
- Prepare kit to be placed on cylinder _____ 5
- Prepare Cylinder for patch _____ 10
- Secure side patch _____ 10
- Ensure leak has been completely stopped _____ 10
- Secure cylinder from tipping _____ 10
- Notify entry team leader that the leak was stopped _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

CHLORINE A-KIT- Valve Leak

Practical Station **NINE**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 472 4-4.3.1, 4-3.2, A-4-3.1, A-4-3.2

The candidate, given hazardous material, shall demonstrate the proper techniques on how to apply an A-kit for a leaking 150lb Chlorine cylinder.

PREPAREDNESS

- Identify PPE that should be worn _____ **FAIL**
- Set up equipment to be used for operations _____ **10**
- Entry team briefed on operation _____ **FAIL**

OPERATION

- Control leak by actuating a valve if possible _____ **15**
- Prepare kit to be placed on cylinder _____ **5**
- Prepare Valve Clamp _____ **5**
- Roll onto base _____ **5**
- Secure clamp _____ **5**
- Shut down vent on bonnet _____ **5**
- Ensure leak has been completely stopped _____ **10**
- Secure cylinder from tipping _____ **10**
- Notify entry team leader that the leak was stopped _____ **10**
- Exit out to the decontamination sector _____ **10**
- Debriefing after incident _____ **10**

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

CHLORINE A-KIT- Valve Seat

Practical Station **TEN**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 472 4-4.3.1, 4-3.2, A-4-3.1, A-4-3.2

The candidate, given hazardous material, shall demonstrate the proper techniques on how to reseal the valve stem for a leaking 150lb Chlorine cylinder.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 10
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by actuating a valve if possible _____ 15
- Prepare kit to be placed on cylinder _____ 5
- Prepare Cylinder for bonnet _____ 5
- Roll onto base _____ 5
- Secure bonnet _____ 5
- Shut down vent on bonnet _____ 5
- Ensure leak has been completely stopped _____ 10
- Secure cylinder from tipping _____ 10
- Notify entry team leader that the leak was stopped _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

CHLORINE B-KIT- Valve Leak

Practical Station **ELEVEN**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 472 4-4.3.1, 4-3.2, A-4-3.1, A-4-3.2

The candidate, given hazardous material, shall demonstrate the proper techniques on how to apply a B-kit for a leaking 1- Ton Chlorine cylinder.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 10
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by actuating a valve if possible _____ 15
- Prepare kit to be placed on cylinder _____ 5
- Prepare Cylinder for bonnet _____ 5
- Secure bonnet _____ 10
- Shut down vent on bonnet _____ 5
- Ensure leak has been completely stopped _____ 10
- Secure cylinder from movement _____ 10
- Notify entry team leader that the leak was stopped _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

CHLORINE B-KIT- SIDE PATCH

Practical Station **TWELVE**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3.1, 4-3.2, A-4-3.1, A-4-3.2

The candidate, given hazardous material, shall demonstrate the proper techniques on how to apply an B-kit for a leaking 1 ton Chlorine cylinder.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 10
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by actuating a valve if possible _____ 15
- Prepare kit to be placed on cylinder _____ 5
- Prepare Cylinder for patch _____ 10
- Secure side patch _____ 10
- Ensure leak has been completely stopped _____ 10
- Secure cylinder from tipping _____ 10
- Notify entry team leader that the leak was stopped _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

CHLORINE C-KIT- Valve Leak

Practical Station **THIRTEEN**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3.1, 4-3.2, A-4-3.1, A-4-3.2

The candidate, given hazardous material, shall demonstrate the proper techniques on how to reseal the valve stem for a leaking Chlorine rail car.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 10
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by actuating a valve if possible _____ 15
- Prepare kit to be placed on rail car _____ 5
- Prepare rail car for bonnet _____ 5
- Secure bonnet _____ 10
- Shut down vent on bonnet _____ 5
- Ensure leak has been completely stopped _____ 10
- Secure cylinder from tipping _____ 10
- Notify entry team leader that the leak was stopped _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

PIPE PATCH

Practical Station **FOURTEEN**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3

The candidate, given hazardous material, shall demonstrate the proper techniques on how to stop a leak from a fixed pipe leak.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 20
- Entry team briefed on operation _____ FAIL

OPERATION

- Control leak by actuating a valve if possible _____ 20
- Place patch over leak _____ 20
- Ensure leak has been completely stopped _____ 10
- Notify entry team leader that the leak was stopped _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

DOME COVER CLAMP

Practical Station **FIFTEEN**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 4-4.3.8

The candidate, given hazardous material, shall demonstrate the proper techniques on how to stop a leak from MC-306 dome cover.

PREPAREDNESS

- Identify PPE that should be worn _____ FAIL
- Set up equipment to be used for operations _____ 20
- Entry team briefed on operation _____ FAIL

OPERATION

- Ground the tank prior to operations _____ FAIL
- Safely operate around tank _____ FAIL
- Apply dome cover clamp _____ 30
- Ensure leak has been completely stopped _____ 20
- Notify entry team leader that the leak was stopped _____ 10
- Exit out to the decontamination sector _____ 10
- Debriefing after incident _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

HAZMAT- VICTIM DECONTAMINATION

Practical Station **SIXTEEN**

Candidate #: _____ Examiner: _____ SCORE: _____

NFPA 471 7-1

CFD SOG 8.5.4, 9.8

The candidate shall identify the proper type of decontamination system to set up to decontaminate victims, responders, tools, and equipment.

SETUP

- Identifies product(s) involved _____ FAIL
- Sets up a decontamination cooridoor for incident _____ FAIL
- Identify type of decon system to set up. (Wet or Dry)..... _____ 5
- Identifies all parts to the decontamination system _____ 5
- Identifies a decontamination team _____ 5
- Properly set up a decontamination system. _____ 5

OPERATIONS

- Communicates status with the IC _____ 10
- Coordinates the victims through the system _____ 5
- Decontaminates the victims. _____ 5
- Coordinates the responders through the system _____ 5
- Properly decontaminates the responders. _____ 5
- Ensures all equipment is decontaminated..... _____ 5
- Ensures that all decon personnel go through the system _____ 5
- Coordinates with EMS for evals _____ 10

TAKE DOWN

- Coordinates the take down of the system _____ 10
- Identifies that ALL equipment has been properly deconed _____ 10
- Properly completes all paperwork _____ 10

Deductions: _____

CHANHASSEN FIRE DEPARTMENT HAZMAT SKILLS

HAZMAT- PPE

Practical Station **SEVENTEEN**

Candidate #: _____ Examiner: _____ SCORE: _____
NFPA 472 3-3.3

The candidate shall identify the proper type of Personal Protective Equipment (PPE) For a given situation. The candidate shall identify and inspect each type of PPE available.

SCBA

SCBA Donning & Doffing

- Extend all straps before donning..... _____ 1
 - Check for full tank gauge reading "full" _____ FAIL
 - Donning – Did the examinee per manufacturers recommendations:
 - Turn on tank valve or main valve as necessary _____ 1
 - Compare tank gauge with regulator gauge _____ 1
 - Acceptable procedure for donning backpack, _____ 1
 - Fasten all harness straps properly _____ 1
 - Extend the coat collar free of straps _____ 1
 - Don facepiece, pull spider straps back, not sideways _____ 1
 - Check facepiece seal (pressure test) _____ FAIL
 - Complete donning within 60 seconds _____ 1
- Sub Total _____ (8)

APR

APR Donning & Doffing

- Extend all straps before donning..... _____ 2
 - Identify Proper cartridge and exposure limits _____ FAIL
 - Donning – Did the examinee per manufacturers recommendations:
 - Don facepiece, pull spider straps back, not sideways _____ 1
 - Check facepiece seal (pressure test) _____ FAIL
 - Complete donning within 60 seconds _____ 1
- Sub Total _____ (3)

LEVEL D

- Identify types of Level D Protection _____ 2
 - Identify potential points that a chemical can breach the suit _____ 10
 - Identify a potential chemical exposure through the following method
 - Penetration _____ 5
 - Permeation _____ 5
 - Inspect the suit for any defects, cracks, tears, Etc. _____ FAIL
 - Properly Don and Doff the suit _____ FAIL
- Sub Total _____ (22)

