



PENNSYLVANIA STATE FIRE ACADEMY HAZARDOUS MATERIALS OPERATIONS NFPA 470 – 2022 Edition

****Attention:** All certification candidates are required to have an established and up to date user portal account in the PA State Fire Academy's Acadis Learning Management System prior to participating in **ANY** certification testing opportunity. Please log in to your Acadis portal account and update all personal information before submitting your certification application. (Access can be gained through the OSFC website – [Training and Certification Portal](#)).

Hazardous Materials Operations – Skill Stations NFPA 470, 2022 Edition: Chapters 7

	General (Chapter 7)	
Station A	Planning the Response (7.1 to 7.3)	Mandatory
Station B	Implement the Planned Response (7.4 to 7.6)	Mandatory
Station C	Proceed through Emergency Decontamination (7.4 and 7.5)	Mandatory



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STATION A – Planning the Response		Reference NFPA 470 – 2022 Edition, Chapter 7 Mandatory Station JPRs 7.2.1, 7.3.1	
Test Site	Test Date	Candidate #	Check the Test Type _____ Initial _____ Retest

Evaluator Note: Scenario chosen MUST be marked at the top of the task list

Directions: Given a hazardous materials scenario at either a fixed facility, in a transportation setting, or at a pipeline along with AHJ SOPs, reference materials and a facility representative, the candidate must analyze one of the scenarios and identify potential hazards, response objectives and action options for the incident, select and implement a response consistent with the emergency response plan to include: scene control, emergency/gross decontamination, and evidence preservation, while communicating the response status through the chain-of-command.

Performance Outcome: Pass / Fail is determined by **ALL** of the tasks being correctly performed.

No.	Tasks	Yes	No
Check Scenario - Fixed Facility: <input type="checkbox"/> Transportation: <input type="checkbox"/> Pipeline: <input type="checkbox"/>			
Fixed Facility			
1	Identify type of facility and container		
2	Meet with facility representative to determine location of incident and access to incident		
Transportation			
1	Identify type(s) of container(s)		
2	Identify type of spill or leak and ensure that they are located upwind, uphill, and upstream as appropriate		
Pipeline			
1	Identify pipeline incident and where to find contact information		
2	Communicate to pipeline operator or carrier relaying appropriate information and obtaining relevant information		
All Scenarios			
3	Collect and determine hazard information from approved reference sources		
4	Describe any potential behavior of materials, containers, or pipelines		
5	Describe likely outcomes associated with identified behavior and surrounding conditions		
6	Identify strategies based on the scope of the incident and available resources		
7	Identify tactics based on response objectives and available resources		
8	Identify safety precautions for the incident, including EM Decon methods		
9	Determine if available PPE is appropriate for the incident		
10	Complete incident Size up		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #:** _____



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STATION B – Implement the Planned Response		Reference NFPA 470 – 2022 Edition, Chapter 7 Mandatory Station JPRs 7.4.1, 7.5.1, 7.6.1	
Test Site	Test Date	Candidate #	Check the Test Type _____ Initial _____ Retest

Evaluator's Note: The evaluator may need to assist the candidate in setting up site control barriers.

Directions: Given a scenario and incident action plan involving a hazardous material and/or WMD materials, the candidate will establish ICS, interpret information and implement a response to include the following tasks; scene control, emergency decontamination and evidence preservation.

Performance Outcome: Pass / Fail is determined by **ALL** of the tasks being correctly performed.

No.	Tasks	Yes	No
Emergency Decontamination performed on <input type="checkbox"/> Responder <input type="checkbox"/> Victim			
1	Establishes control zones and physically secures site, denies entry using barrier tape, barricades or posting a guard		
2	Candidate implements and communicates at all levels of the established ICS		
3	Control Efforts: considers wind direction, water spray and run off		
4	_____ Selects appropriate PPE _____ Verbalizes safety and emergency procedures based on the level of PPE used _____ Dons and Doffs selected PPE		
5	Instructs the individual to the proper emergency/gross DECON location		
6	Sets nozzle to a low flow, narrow fog OR sets up gross wash in DECON corridor		
7	Holds nozzle above responder/victim's head		
8	Instructs individual to properly position themselves to complete the DECON process _____ properly flush under arms, _____ the groin area _____ flushed feet while victim moves to a safe area for medical evaluation. [Flushing / gross wash time is dependent on the type of contamination.]		
9	Evaluate the effectiveness of decontamination using appropriate monitoring/detection method		
10	Evaluates scenario for progress and records/reports upline observations: _____ identifies evidence / possible evidence and if evidence disturbed and how _____ if evidence was moved notes where, how, why _____ assesses effectiveness of operations / conditions for withdrawal _____ documents personnel / activities associated with the incident		
11	Completes all tasks without compromising personal or team safety		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #:** _____



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STATION C: Proceed Through Emergency Decontamination		Reference NFPA 470 – 2022 Edition, Chapter 7 Mandatory Station JPR 7.4.1	
Test Site	Test Date	Candidate #	Check the Test Type _____Initial _____Retest

Evaluator's Note: In conjunction with Skill B, candidates for skill C will proceed through the emergency decontamination station set up in skill B.

Directions: Given a hazardous materials scenario, AHJ SOPs, appropriate Structural Firefighting PPE, charged hoseline and water supply, decontamination equipment (i.e., fans, brushes, vacuums, garbage bags, etc.), the candidate will go through decontamination procedures while wearing and doffing approved PPE. Do you have any questions?

Performance Outcome: Pass/ Fail is determined by **ALL** of the tasks being correctly performed.

No.	Tasks	Yes	No
1	Proceed to decontamination line		
2	Place tools and equipment in the designated area for decon.		
3	Proceed through decontamination line as directed by decon crew		
4	Doff PPE while continuing to breathe air from SCBA. a) Remove helmet and hood (slide hood over face mask to airline). b) Remove turnout coat and outer gloves. c) Roll turnout pants down with clean side out, and step out of boots. d) Remove SCBA facepiece, shut off the cylinder valve, and disarm PASS. e) Remove and dispose inner gloves. NOTE: A helper may be used to doff PPE.		
5	Wash, using soap and water or disposable towels to clean the head, face, neck, hands, and wrists before moving to the medical monitoring area.		
6	Using the appropriate forms/reporting procedures candidate notes/reports any abnormal findings during testing/inspection of PPE		
7	Ensure appropriate disposal or decon of PPE.		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #:** _____



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PSFA Hazmat OPS
Hazmat Tactical Worksheet

Incident Location: _____ Time: _____ Date: _____

Site Rep: _____ Contact: _____

ICP Location: _____

LIFE SAFETY

___ Primary Search
___ Evacuation
___ Site Access Control
___ Secondary Search
___ Medical Unit
___ Decontamination
___ Rehab

PRODUCT INFORMATION

ERG Guide Page #: _____

Product Name: _____ UN ID# _____

Solid ___ Liquid ___ Gas ___ Quantity _____

Reacts with water ___ Water Soluble ___ Inhalation Hazard ___

Specific Gravity ___ Vapor Density ___ Vapor Pressure _____

TLV/Ceiling ___ IDLH ___ REL ___ Boiling Point _____

Freezing Point ___ Flash Point ___ LEL ___ UEL _____

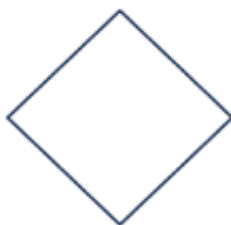
PPE _____

Respiratory Protection _____

NFPA 704



DOT Placard



Hazard ID Numbers



Container Information

Pressure ___
Non-Pressure ___
Bulk ___ Shipping Papers ___
Transport ___ SDS ___
Other _____

Weather Information

Temp _____
Humidity _____
Wind Speed _____
Wind Direction _____

Resources on Scene



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PSFA Hazmat OPS

Hazmat Tactical Worksheet

Air Readings at Command Post

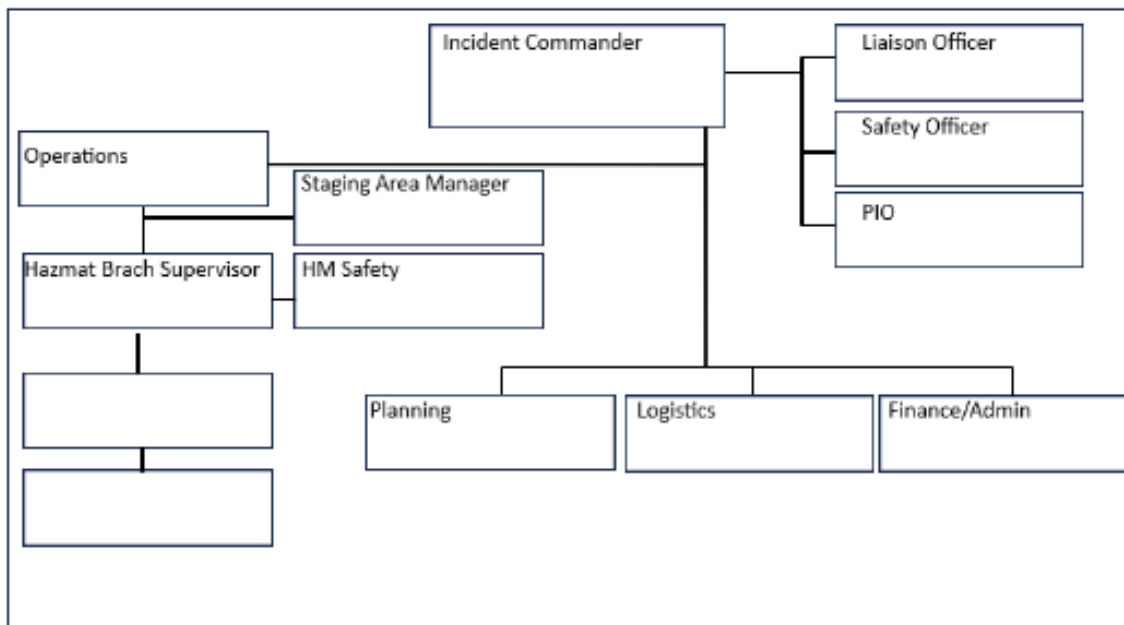
Initial Readings and at 5-minute intervals

Date _____					
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm
Time _____	O ₂ _____%	CO _____ppm	LEL _____%	H ₂ S _____ppm	HCN _____ppm

Attach additional sheets if necessary

ACTIONS TAKEN

<input type="checkbox"/> Rescue	<input type="checkbox"/> Em Decon	<input type="checkbox"/> Oil Dry
<input type="checkbox"/> Evacuation	<input type="checkbox"/> Pads	<input type="checkbox"/> Hazmat Unit
<input type="checkbox"/> Isolation Zone	<input type="checkbox"/> Booms	<input type="checkbox"/> None
<input type="checkbox"/> Air Monitoring	<input type="checkbox"/> Dam/Dike/Divert	<input type="checkbox"/> Other
<input type="checkbox"/> Deny Entry	<input type="checkbox"/> Retain	





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PSFA Hazmat OPS
Hazmat Tactical Worksheet

Site Sketch

Situation Summary and Health and Safety Briefing Information:

Current and Planned Objectives:



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Hazardous Materials Dilution Worksheet and Report

Product/Material spilled _____

Product/Material solubility _____

Amount of product/material spilled _____ gallons

pH Level of the product/material spilled _____

pH level desired for dilution _____ pH

Amount of water to dilute product/material _____ gallons

Area to retain water is large enough? YES NO

Dilution decision GO NO-GO

Final pH of product/material after dilution _____ pH

Any product/material escape the retention area YES NO

Were Dilution operations successful YES NO

Report given to Command/IC/Operations? YES NO

Additional Notes/Comments: _____

Report completed by: _____



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Pennsylvania State Fire Academy

Personal Protective Equipment Inspection Checklist



USER Name	Inspection Date

Instructions:

1. This checklist shall be used for a structural firefighting ensemble only
2. Soiled or contaminated gear shall be cleaned prior to inspection

Definitions:

"Soiled" – Soil easily transfers from one surface to another

"Contamination" – Presence of a visual or odorous foreign substance

3. Universal precautions shall be used if the gear is soiled or contaminated
4. The following inspection elements should not be considered all inclusive. In the event that you find something that requires further inspection, do not hesitate to have it inspected further
5. The inspection should in no way be interpreted as complying with the Advanced Inspection requirements established by NFPA 1851 **Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensemble**, 2014 edition
6. Place an X in the appropriate box (P)ass or (F)ail

Helmet Make:	Model:		S/N:	
	P	F		
Contamination			Suspension system	
Soiling			Damaged or missing reflective trim	
Shell Damage: Cracks, crazing, dents, abrasions or thermal damage			Liner Damage: Rips, tears, or thermal damage	
Damaged or missing components			Loss of Seam Integrity	

Eye Protection	P	F
Damaged or missing components to faceshield or goggle system		

Hood	P	F
Contamination		
Soiling		
Loss of Face Opening adjustments / shrinkage		

Footwear Make:	Model:	
	P	F
Contamination		
Soiling		
Closure system damage		
Damaged or deformed safety toe, mid-sole, and shank		

Drag Rescue Device (DRD)	P	F
Contamination		
Soiling		
Cuts, tears, punctures, splitting, or thermal damage		



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Coat – Make:	P	F	Model:	P	F
Contamination			Rips, cuts, tears, or thermal damage		
Soiling			Correctly assembled		
2" Coat to Pants overlap					
Damaged or missing hardware and closure system			Loss of Seam Integrity; Broken or missing stitches		

Pants – Make:	P	F	Model:	P	F
Contamination			Rips, cuts, tears, or thermal damage		
Soiling			Correctly assembled		
Damaged or missing hardware and closure system			Loss of Seam Integrity; Broken or missing stitches		

Gloves					
	P	F		P	F
Contamination			Rips, cuts, tears, or thermal damage		
Soiling			Inverted liner		
Shrinkage			Loss of elasticity and flexibility		
			Loss of Seam Integrity; Broken or missing stitches		

Interface Components(items such as wristlets and collars)					
	P	F		P	F
Contamination			Loss of effectiveness		
Soiling			Physical damage		
			Loss of Seam Integrity; Broken or missing stitches		

COMMENTS:

ANY DAMAGE NOT INCLUDED IN THIS CHECKLIST SHALL REQUIRE AN ADVANCED INSPECTION

Inspected by:	Signature:
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PSFA Chemical Protective Clothing Inspection Form

Before Use Inspection

Visual Inspection of CPC # _____

Suit Size: _____ Suit Material: _____

Inspected by: _____

Inspection Date: _____

	Good	Unsat		Good	Unsat
CLOTHING (CPC)					
Imperfect Seams			Stiffness		
Nonuniform Coatings			Evidence of chemical attach such as discoloration, swelling, stiffening, softness		
Tears			Closure failure		
Malfunctioning Closures			Tears		
Observe for cracks			Punctures		
Observe for shelf deterioration			Seam discontinuities		
Discoloration					
Swelling					
GLOVES					
Pressurize gloves to check for pinholes					
ENCAPSULATING SUITS					
Check faceshield for			Operation of pressure relief valves		
Cracks			Fitting of wrists, ankles, neck		
Crazing					
Fogginess					