



HAZ-MAT Operations
PRACTICAL SKILLS CERTIFICATION
EVALUATION SHEETS
(NFPA 472 Standard, 2002 edition)

Department of Public Safety
Alaska Fire Standards
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(907) 269-5052

<http://www.alaskafiretraining.com>

Version 2
July 2008

Updates with this Version

ALASKA HAZARDOUS MATERIALS OPERATIONS SKILL SHEETS

(The following updates and/or modifications are in this version)

Version #2 – July 2008

- a. Update to change to Alaska Fire Standards Council
- b. Correct minor grammatical and spelling errors

ALASKA HAZARDOUS MATERIALS OPERATIONS SKILL SHEETS

Notes on Using These Skill Sheets

Purpose of the Skill Sheets

The Department of Public Safety, Fire Standards Council has developed these skill sheets as the basis for Hazardous Materials Operations training and practical examination. Although during the training portion an instructor will teach and evaluate each skill individually, the final practical examination will be conducted by consolidating relevant skill sheets into a number of stations. During this final skills examination testing, the Certifying Officer will use three random testing stations. In accordance with the grading criteria the applicant must demonstrate competency in all selected skill areas.

Use of these Skill Sheets

1. These skills sheets should be given to every Hazardous Materials Operations student at the beginning of their training program. These are the skills the students will be tested on at the end of the training program, and as such they should be aware of the requirements.
2. This skill sheet packet includes all of the practical skills that must be accomplished in the Hazardous Materials Operations training program. It is expected that within a student's training program he or she is taught each skill, and then performs each skill while being evaluated. This evaluation should not be confused with the "final exam skills evaluation" that will take place at the end of the course. The evaluation during the course is to provide the student and the instructor with information as to whether further training is necessary.

ALASKA HAZARDOUS MATERIALS OPERATIONS SKILL SHEETS

Grading Criteria and Critical Points

1. Every skill sheet includes a statement “Grading Criteria”. This statement designates those items, or the specific percentage of items that must be complete to pass that particular skill sheet. If that criterion has not been reached the applicant fails that skill sheet.
2. There are a number of these skills sheets that require the demonstration of haz-mat skills with regards to specific hazardous materials scenarios. Some of these skills can be accomplished through “simulated” haz-mat scenarios. In those instances the skill sheet specifically describes that these simulated conditions are allowed.
3. **Regardless of the skill sheets used, the following are considered "critical points" and failure to perform them properly may result in failure of that skill sheet:**
 - a. Using proper safety techniques in all evolutions
 - b. Using proper body substance isolation precautions
 - c. Completing the individual elements of a skill in the proper order
 - d. Exceeding any limitations such as time, safety, or equipment limitations
 - e. Lack smoothness and accuracy
 - f. Poor judgment in performing the skill
 - g. Not being the “master” of the task
 - h. Outcome of the task in doubt
 - i. Evaluator must intervene

Artificialities of Training and Testing

Training and testing in hazardous materials skills can only approximate the real world activities of the haz-mat responder. There are certain artificialities to both training and testing which must be understood by both the instructor and the student. For example, in the testing and training phases of haz-mat general impressions must be verbalized to the evaluator or instructor. In the field setting this impression would not be verbalized at the incident.

Evaluation

A Fire Standards Council approved Certifying Officer must conduct the final skills evaluation at the completion of a Hazardous Materials Operations training program. This Certifying Officer will be responsible for coordinating the evaluators, the preparation of the testing site, and the process and procedures used during the skills testing. Completion of the testing skills for a particular training program must be verified by an evaluator approved by the Certifying Officer for that training level. The Certifying Officer is required to perform their duties as outlined in the FSC Certifying Officer Manual.

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Additional Notes

1. For many of the skill stations full protective gear is required to perform the task. The evaluator may require that the candidate also perform the skill while wearing SCBA. In these cases the evaluator may decide whether the candidate will be actually breathing air from the bottle or just wearing the SCBA while not using the mask. Because of the increased difficulty in evaluation, and servicing the equipment after each skill, this option is left to the evaluator. Evaluators are cautioned though to adequately test each applicant in as realistic conditions as possible.
2. Many skills require that equipment be prepared or assembled. Unless the context indicates otherwise, it is permissible to prepare or assemble the required equipment or devices at any time, so long as it does not interfere with skill, task, or evolution. The student should know how to prepare or assemble all equipment.
3. Hazardous Materials responders should not only practice a skill under optimum conditions, but should also practice in more difficult and realistic circumstances as competence increases. Also, it is particularly important to be able to identify and respond rapidly and correctly to equipment malfunctions, improper use of equipment. If during a skill, a team or candidate begins to use a piece of equipment incorrectly, but quickly makes the necessary correction during the evolution, the evaluator may give the candidate credit for correctly completing the task.
4. While performing a skill, task, or evolution, the exact order of the steps (as outlined on the skill sheet) is not critical, unless the steps and order performed are critical to that particular skill. For example, a person may need to put on protective clothing before donning an SCBA.
5. The haz-mat responder may be asked to verbalize information about a particular task or procedure. In such cases the evaluator must ask questions specifically related to the task or procedure at hand, and must not extend into other areas beyond that being tested. Additionally the questions must be at the Hazardous Materials Operations level.

Acknowledgements

The Fire Standards Council would like to acknowledge the assistance of the State of Washington State Fire Marshals Office and the State of Alaska Dept. of Health & Social Services, Emergency Medical Services Section in preparing this skill sheet packet. Without the assistance of these two agencies this document would not have

ALASKA HAZARDOUS MATERIALS OPERATIONS SKILL SHEETS

5.1.2.1, 3C DON, DOFF PPE
Standard Area: NFPA 472 - Introduction

Evaluation Sheet: HMO 1

Candidate: _____

Date: _____

Standard: 5.1.2.1, 3C and 5.4.3, 9 NFPA 472, 2002 Edition	TASK: Use SCBA during emergency operations: correctly don and activate the SCBA in one minute.				
PERFORMANCE OUTCOME: The candidate, while operating at a simulated fire scene or cab of apparatus, and in full protective clothing, shall be able to correctly don and activate the SCBA in one minute.					
CONDITIONS: Given SCBA and full protective clothing, the candidate shall be able to: (Time will begin when SCBA donning starts and ends when the SCBA is correctly donned with, all protective clothing correctly in place and candidate is on air.)					
No.	Task Steps	First Test		Retest	
		Pass	Fail	Pass	Fail
1.	Check that the SCBA is ready for service including checking the amount of air in the cylinder. <u>DONNING (following within 1 minute)</u>				
2.	Correctly don SCBA including checking amount of air in cylinder and operation of low air alarm				
3.	Correctly don face piece including checking seal and operation of exhalation valve				
4.	Activate and check PASS device				
5.	Have all personal protective clothing correctly in place				
6.	Correctly accomplished above steps 2-6 in one (1) minute				
	<u>DOFFING</u>				
7.	Remove SCBA and prepare it for reuse. (Use Skill Sheet FFI 26C for inspection & maintenance task requirements.)				
RETEST APPROVED BY:		RETEST EVALUATOR:			

Grading Criteria: All above task steps must be completed.

Evaluator/Candidate Comments: _____

Evaluator	Date	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px;">Overall Skill Sheet Score</td> </tr> <tr> <td style="text-align: center; padding: 5px;">Pass <input type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Fail <input type="checkbox"/></td> </tr> <tr> <td colspan="2" style="padding: 5px;">Overall Skill Sheet Re-Test Score</td> </tr> <tr> <td style="text-align: center; padding: 5px;">Pass <input type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Fail <input type="checkbox"/></td> </tr> </table>	Overall Skill Sheet Score		Pass <input type="checkbox"/>	Fail <input type="checkbox"/>	Overall Skill Sheet Re-Test Score		Pass <input type="checkbox"/>	Fail <input type="checkbox"/>
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Pass <input type="checkbox"/>	Fail <input type="checkbox"/>									
Overall Skill Sheet Re-Test Score										
Pass <input type="checkbox"/>	Fail <input type="checkbox"/>									
Re-Test Evaluator	Date									

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5.1.2.1, 3D DEFENSIVE CONTROL ACTIVITIES
Standard Area: NFPA 472 - Introduction

Evaluation Sheet: HMO 2

Candidate: _____

Date: _____

STANDARD: 5.4.4.3 and 5.4.4, 3 NFPA 472, 2002 Edition	TASK: Demonstrate defensive control activities.				
PERFORMANCE OUTCOME: While operating as a member of a response team, the candidate shall be able to demonstrate defensive control activities given the following conditions.					
CONDITIONS: Given the appropriate tools and equipment, and while wearing full PPE and SCBA, the candidate shall accomplish the following. The evaluator will indicate which of the following items you will be tested on.					
No.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Absorption For example: Absorbent pads, saw dust, diatomaceous earth, gelling agent.				
2.	Damming For example: Sand, dirt, salvage cover, absorbent pads, sewer-storm drain plugs.				
3.	Diking For example: Dirt, sand bags, absorbent pads, clay				
4.	Dilution For example: Applied water stream to dilute substance				
5.	Diversion For example: Shovels or high pressure water streams, sand bags				
6.	Retention For example: Salvage cover catch-all basin, earthen dams, floating confinement boom, temporary patches on containers				
7.	Vapor Dispersion For example: Water streams				
8.	Vapor Suppression For example: Vapor suppressing foam				
RETEST APPROVED BY:			RETEST EVALUATOR:		

Grading Criteria: Completion of Evaluator selected items within a reasonable time

Evaluator/Candidate Comments:

Evaluator	Date	Overall Skill Sheet Score Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Re-Test Evaluator	Date	Overall Skill Sheet Re-Test Score Pass <input type="checkbox"/> Fail <input type="checkbox"/>

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5.4.1.5 EMERGENCY DECONTAMINATION
Standard Area: NFPA 472 – Implementing Planned Response

Evaluation Sheet: HMO 3

Candidate: _____

Date: _____

STANDARD: 5.4.1.5 NFPA 472, 2002 edition	TASK: Emergency decontamination				
PERFORMANCE OUTCOME: Given the following CONDITIONS, the candidate shall be able to remove the simulated victim from the contaminated area, wash the victim as necessary, remove contaminated gear, and coordinate transporting the victim to a facility of higher care.					
CONDITIONS: Given a simulated victim, and a simulated contamination scenario, necessary rescue equipment, and assignment direction, the candidate shall demonstrate the ability to:					
No.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Remove the victim from the contaminated area.				
2.	Wash victim down with flooding quantities of water.				
3.	Remove victim’s helmet, if worn.				
4.	Release SCBA harness and remove unit.				
5.	Remove contaminated fire gear and clothing. (for testing scenario only fire gear will be removed)				
6.	Move victim to clean environment and/or ambulance.				
7.	Communicate information to ambulance and/or hospital personnel.				
RETEST APPROVED BY: _____		RETEST EVALUATOR: _____			

Grading Criteria: 70% (5 of 7)

Evaluator/Candidate Comments: _____

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Pass <input type="checkbox"/>	Fail <input type="checkbox"/>									
Overall Skill Sheet Re-Test Score										
Pass <input type="checkbox"/>	Fail <input type="checkbox"/>									
Re-Test Evaluator	Date									

ALASKA HAZARDOUS MATERIALS OPERATIONS SKILL SHEETS

5.4.4, 1 APPLICATION OF FOAM OR AGENT
Standard Area: NFPA 472 – Implementing Planned Response

Evaluation Sheet: HMO 4

Candidate: _____

Date: _____

STANDARD: 5.4.4, 1 NFPA 472, 2002 Edition	TASK: Demonstrate proper application of firefighting foam or a vapor suppressing agent.				
PERFORMANCE OUTCOME: While operating as a member of a team, the candidate shall be able to properly apply firefighting foam or a vapor suppressing agent, given the following conditions. The agent application should be sufficient to prevent re-ignition, and provide safety to the team at all times.					
CONDITIONS: Given an actual spill or a simulated scenario, and an assembled foam fire stream, the candidate shall demonstrate the ability to accomplish the following. This demonstration may be actual or a simulation of either an ignited liquid, a liquid that has not yet been ignited, or another Hazardous Materials release simulation.					
No.	TASK STEPS	FIRST TEST		RETEST	
		Pass	Fail	Pass	Fail
1.	Prepare personnel, place attack line in position upwind, and check nozzle for proper production of foam solution				
2.	Coordinate the attack team's advancement toward the fire so that a smooth and safe approach is maintained. Choose one. a) Apply a foam blanket over the fuel's surface by using the Roll-On Method b) Apply a foam blanket over the fuel's surface by using the Bank-Down Method c) Apply a foam blanket over the fuel's surface by using the Rain-Down Method				
3.	Prevent re-ignition by maintaining a foam blanket				
4.	Coordinate the attack team's retreat so that the hazard is faced until the entire team reaches a safe haven				
5.	Maintained the personal safety of all attack team members				
RETEST APPROVED BY: _____		RETEST EVALUATOR: _____			

Grading Criteria: All above task steps (one of #2) must be completed.

Evaluator/Candidate Comments: _____

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Pass <input type="checkbox"/>	Fail <input type="checkbox"/>									
Re-Test Evaluator	Date									

ALASKA HAZARDOUS MATERIALS OPERATIONS SKILL SHEETS

SKILL TEST SHEETS CORRILATION MAP

NFPA 472 Standard	Skill Sheet Number
5.1.2.1, 3C	HMO 1
5.1.2.1,3D	HMO 2
5.4.1.5	HMO 3
5.4.4,1	HMO 4

List of Required Certification Examination Haz-Mat Operations Skill Stations

Following is a list of the skill stations that each candidate for certification must accomplish. The final skill examination will consist of two random selections from the Haz-Mat Operations Skill Sheets. The skill stations will be selected randomly by the LXR computer system in the FSC Office.

ALASKA HAZARDOUS MATERIALS OPERATIONS SKILL SHEETS

Suggestion Form

We want to keep these skill sheets as current, relevant, and useful as possible. If you have suggestions for improving the skill sheets, **please** let us know. Simply complete the form below and send it to:

Alaska Fire Standards Council
5700 E. Tudor Road
Anchorage, Alaska 99507

FAX: (907)269-0134

Make as many copies of this form as you need. Your comments will be forwarded to the Fire Standards Council Administrator for review. We hope to revise the skill sheet packet as needed or when the NFPA standards are modified.

Name:	Date:	
Skill Sheet:		
Problem:		
Suggested Solution:		