FIRE SERVICE TRAINING

Hazardous Materials Technician Certification

Skill # **4.1Radiation Monitoring: Ludlum 14C**	Maximum Time Allowed: **15 min.**

INSTRUCTIONS TO THE CANDIDATE

The Candidate**,** working as an individual and using a Ludlum 14C radiological monitor, shall demonstrate the ability to operate, use, and perform testing of the equipment to identify and quantify an unknown solid, liquid or gas.

CANDIDATE PERFORMANCE	1st Attempt		2nd Attempt	
	Yes	**No**	**Yes**	**No**
♦ Candidate has informed the evaluator that they have been trained in this skill.				
Remove the unit from its storage case and insure the survey meter and probe are a matched/calibrated set				
♦ Ensure the selector switch is in the "OFF" position				
Open the battery lid by pushing down and turning the thumb screw counter-clockwise a quarter-turn. Install two charged "D" size batteries insuring battery polarity is in the correct location. Close the battery box lid, pushing down and turning the thumb screw clockwise a quarter-turn.				
♦ With the instrument in the "OFF" position, connect the detector/probe to the input connector of the instrument. Avoid contacting the center pin of the input connector with anything other than the probe cable connection.				
Connect the detector/probe cable to the detector/probe by firmly pushing the connectors together and twisting a quarter-turn clockwise				
Place the "AUD ON/OFF" switch in the "ON" position. Perform an audible check.				
♦ Move the range switch to the "X 1000" Position and press hold the "BAT" button. Ensure the meter needle deflects to the battery check portion of the meter scale. If the meter does not respond appropriately replace the batteries.				
♦ The candidate selects proper probe to obtain background reading to go down range. (Scintillator 44-2)				
♦ Candidate ensures that the monitor is in the slow mode while obtaining background reading.				
♦ The candidate scales down to appropriate scale to obtain background reading. After 60 seconds report the background reading in (milli-Rem per hour).				
♦ Turns the monitor to the fast mode .				
Evaluator will direct the candidate to a source and ask the student to monitor the source and provide the correct reading. The Evaluator will advise the candidate that they are monitoring for an Gamma Source.				
♦ The candidate will select the appropriate probe for this evaluation. (Scintillator 44-2)				
♦ The candidate will be directed to the source and begin monitoring. If the reading reaches 80% of the scale the candidate will scale up to the next appropriate scale and push the reset button and continue monitoring.				
♦ Once a reading is obtained; the candidate will report the correct reading in Milli-Rem per hour).				
♦ The candidate will determine if the reading is within the hot zone. Two times the background reading for gamma.				
Evaluator will direct the candidate to clean and return the instrument to storage.				

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♦ Turns the instrument off and removes the batteries						
Allows the instrument to sit for a minimum of one minute before cleaning						
Carefully cleans all external surfaces using a damp cloth (water only)						
Carefully dries all external surfaces using a soft dry cloth						
Removes the detector/probe from its cable and stores in the unit's container						
Removes detector cable from instrument and stores both in the container						
Inventories the containers contents and properly seals						
Candidate must complete all steps to pass:	**19**	**Total**				

Candidates Name_____

1st Evaluator Signature_____ Date_____

2nd Evaluator Signature_____ Date_____

Skill # **4.1Radiation Monitoring: Ludlum 14C**

Objective(s): 7.2.1.3.3(6), 7.2.1.3.4(15), 7.2.1.3.5(8), 7.2.1.3.6 **NFPA 472 Standard 2002 Edition**

INSTRUCTIONS TO THE MONITOR/EVALUATOR

1. The candidate must indicate that they have been instructed how to perform this skill. A negative answer is an immediate failure. No second attempt is allowed. This step doesn't count for the total number of steps the candidate must complete.
2. PPE should be a minimum of Structural Fire Fighting gear and SCBA.
3. Evaluator or support staff must prepare a sample source to be monitored.
4. The proctor must provide the candidate with the following items:
    a. Ludlum 14C survey meter kit
    b. Field level decon supplies

Proctor/Candidate Comments

I was informed of the task steps missed that resulted in the failure of this skill and the OSU-FST re-test policies.

_____ _____

Candidate Signature Date