Report Date: 03 Feb 2015

Summary Report for Individual Task
052-247-1313
Neutralize Potentially Harmful Energy Sources Found in Erected Structures

Status: Approved

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - The materials contained in this course have been reviewed by the course developers in coordination with the Ft Leonard Wood MO/MSCOE foreign disclosure authority. This course is releasable to students from all requesting foreign countries without restrictions.

Condition: You are a member of an Urban Search & Rescue (US&R) team given an erected structure with energy sources, lockout tagout kit and personal protective equipment (PPE). This task should not be trained in MOPP 4.

Standard: Neutralize potential harmful energy sources by controlling the access, identifying the type of energy source, neutralizing the energy source and reporting it to your supervisor IAW National Fire Protection Association (NFPA) 1006 standards.

Special Condition: None

Safety Risk: Low

MOPP 4: Never

Task Statements

Cue: None

DANGER

None

WARNING

When shutting off structural utilities, do not assume there is not a backup generator or alternate source of energy present.

CAUTION

None

Remarks: All required references and technical manuals will be provided by the local US&R Command.

Notes: None

Performance Steps

1. Control access to the incident scene.

a. Place guards at entrance points to prevent non-rescue personnel from entering the structure.

b. Place barriers or tape off access points.

c. Position rescue vehicles at roads leading to and from the structure.

2. Locate energy sources outside the structure.

Note: Utilize both the facility representatives and facility pre-plans when locating structural energy sources.

a. Contact the utility company(s) to see if they can shut the power off.

Note: If the utility company(s) can't shut the power off or be reached, then the rescue element will have to control the energy source(s) on site.

b. Conduct a thorough search outside the structure for energy sources.

3. Locate energy sources inside the structure.

a. Enter the structure ensuring not to use any spark producing tools or heated light sources.

b. Conduct a thorough search inside the structure ensuring all rooms and floors were entered and marked.

CAUTION

Ensure all energy sources have been identified and neutralized before any rescue attempt is made.

4. Control energy sources.

Note: There is not a priority or list of what energy sources should be turnoff first. However, local SOP or pre-plans might indicate a specific order.

a. Neutralize electrical energy sources.

Note: Individual circuit breakers may need to be turned off if a main breaker switch is not present. Report any tripped circuit breakers to the supervisor.

(1) Switch the circuit breaker to the off position.

(2) Attach the lockout device on the main circuit breaker panel power switch.

Figure 052-247-1313-1

Lockout device

(a) Open the breaker lockout.

(b) Place the circuit breaker lockout device through the holes on the breaker box ensuring the handle is behind the device (this will prevent the handle from moving to the on position).

(c) Close the breaker lockout.

(d) Insert a lock through the holes on the lockout device to prevent the device from being opened.

(3) Place a tagout tag on the circuit breaker box, lock, or the lockout device to warn others that the circuit breaker box is off.

Figure 052-247-1313-2
Main circuit breaker

CAUTION

Natural gas that leaks underground in wet soil can lose it's odorant and become difficult to detect without instruments.

b. Neutralize natural gas sources.

CAUTION

Once the gas is turned off, do not attempt to turn it back on. This should be done by the utility company.

(1) Locate the main gas line at the gas meter.
Note: The gas meter maybe located on the inside or on the outside of the structure.

(2) Use a cresent wrench to turn the retangular bar (tang) 90 degrees or 1/4 turn in either direction.

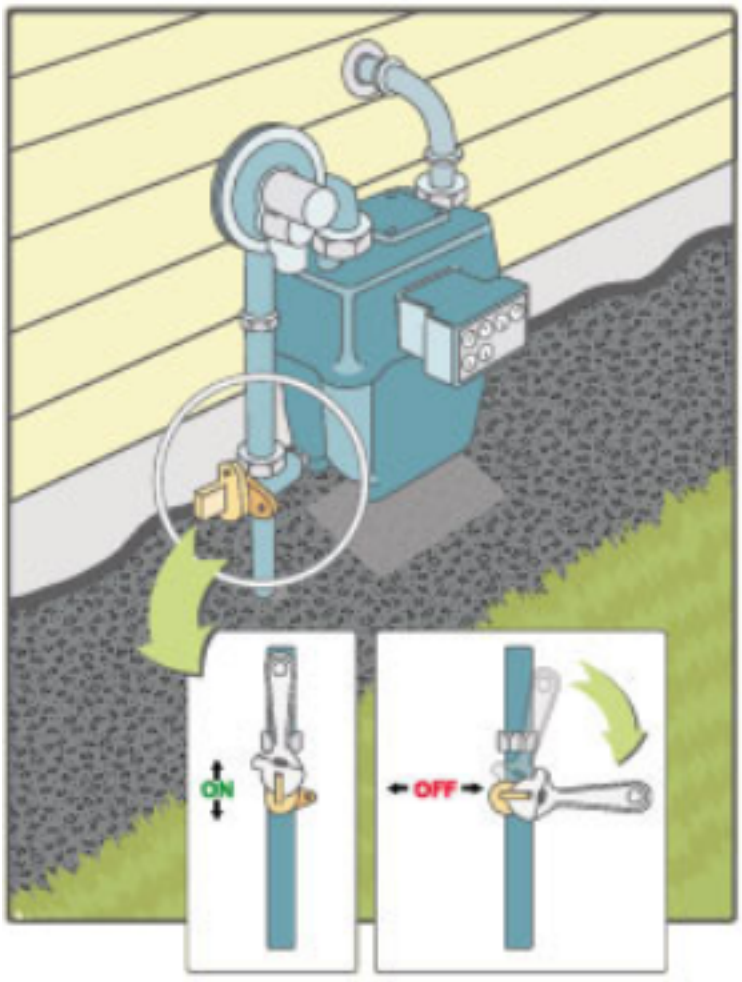

Figure 052-247-1313-3
Natural gas shutoff

(3) Insert a lock through the tang holes to prevent the gas from being turned on (if equipped).

Note: Some gas lines lack tang holes to lock the valve. If this is the case ENSURE a tagout tag is attached and that it is visible.

(4) Attach a tagout tag to the gas meter, lock, or the gas line to warn others that the gas has been turned off.

c. Neutralize propane gas sources.

(1) Turn the main shut off valve clockwise to the complete "off" position.

Note: The main shutoff valve is located on the propane tank.

(2) Attach a lockout device to the valve.

Figure 052-247-1313-4
Valve lockout device

(a) Select the appropriate size lockout for the valve.

(b) Open the lockout device and place it around the valve.

(c) Close the lockout device so the holes align for the lock.

(3) Attach a lock through the holes on the lockout device.

(4) Attach a tagout tag to the propane tank, lockout device, or to the lock to warn others that the propane gas has been turned off.

d. Neutralize alternative power sources.

(1) Neutralize fuel powered generators.

(a) Turn the fuel shut off valve to the closed position to prevent fuel from entering the generator.

(b) Attached a tagout tag to the generator to warn others that the generator is off and should not be operated.

(2) Neutralize wind turbines.

(a) Locate the power switch location.

(b) Turn/rotate the switch to the "off" position.

(c) Attach the lockout device to the power switch.

Note: The steps to attach the lockout device to the power switch were explained in "neutralize electrical energy sources".

(d) Attach a tagout tag to the power switch, lock, or the lockout device to warn others that the power is turned off.

5. Inform the supervisor that the hazards have been neutralized.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all measures are passed (P). Score the Soldier a NO-GO if any measure is failed (F). If the Soldier fails any measure, show him how to do it correctly.

Evaluation Preparation: Setup: Provide the Soldier with all the items listed in the conditions.

Brief the Soldier: Neutralize potentially harmful energy sources found in erected structures.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Controlled access to the incident scene.			
2. Located energy sources outside the structure.			
3. Located energy sources inside the structure.			
4. Controlled energy sources.			
5. Informed the supervisor that the hazards have been neutralized.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	Corps of Engineers	US Army Corps of Engineers, Urban Search and Rescue, Shoring Operations Guide, 3rd Edition	No	No
	IFSTA	International Fire Service Training Association (IFSTA) Fire Service Search and Rescue, 7th Edition	No	No
	IFSTA - 1st Edition	IFSTA Technical Rescue for Structural Collapse, 1st Edition	No	No
	NFPA 1006	Standard for Rescue Technician Professional Qualifications	Yes	Yes

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks :

Task Number	Title	Proponent	Status
052-247-1324	Breach Heavy Frame Structural Components for Structural Collapse	052 - Engineer (Individual)	Approved

Supported Collective Tasks : None