Municipal Technical Advisory Service
INSTITUTE for PUBLIC SERVICE

Published on *MTAS* (https://www.mtas.tennessee.edu) October 26, 2020

Getting Started with a Structure

Dear Reader:

The following document was created from the MTAS website (mtas.tennessee.edu). This website is maintained daily by MTAS staff and seeks to represent the most current information regarding issues relative to Tennessee municipal government.

We hope this information will be useful to you; reference to it will assist you with many of the questions that will arise in your tenure with municipal government. However, the *Tennessee Code Annotated* and other relevant laws or regulations should always be consulted before any action is taken based upon the contents of this document.

Please feel free to contact us if you have questions or comments regarding this information or any other MTAS website material.

Sincerely,

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Reference Number: MTAS-1230

Preparation should start by making sure that the person who states that he owns the structure is the owner and has the authority to give the fire department permission to use the structure. The fire department and owner must discuss and agree on which party will be responsible for what, such as site preparation, removal of utilities, asbestos testing, permits, debris removal, etc., and sign an agreement formalizing these details. The fire insurance policy should be canceled so the owner does not claim the training fire as a loss.

Once legal ownership and authority to grant permission to use the structure is established, and before signing an agreement to use the property and/or structure for training, the fire department should conduct a visual inspection of the property and structure for safety and environmental liability. It is important to ensure that no hazardous environmental conditions are on or under the property, or in the structure. Check with local law enforcement to make sure the property was not involved in the production of methamphetamines or other illegal drugs, as chemical residues from such processes are hazardous. Check to see if the runoff water can be controlled and contained. If any environmental concerns are found and cannot be mitigated, it may be best to say, “Thank you, but we cannot use this structure because of environmental concerns,” and move on.

Some structures are simply too unsafe to burn. If the structure is not safe, the fire department should say, “Thank you, but we cannot use this structure safely,” and move on. If the structure is safe for live fire training, and there are no environmental concerns, the department should create a written training plan for the structure. The training officer must share the plan with all participants before any training takes place. Firefighters need to experience live fire training in as controlled an environment as possible and not be surprised by something unexpected.

An acquired structure intended for live fire training can provide many training opportunities before the first fire is ignited. Firefighters can review building construction, perform forcible entry, perform search and rescue drills, conduct ladder evolutions, advance hose lines, run mayday scenarios, practice Rapid Intervention Team (RIT) response, conduct bailout drills, practice technical rescue evolutions, practice ventilation techniques, and conduct other training opportunities to gain knowledge and skills. The training officer should create a plan that maximizes the benefit of the structure for training opportunities in addition to live fire training. Even if it is not possible to use the structure for live fire training, the structure can provide these and many other one-of-a-kind training opportunities. Before starting any non-fire training, the department must test the structure for asbestos and remove any asbestos products. In structures constructed with asbestos materials, likely exposure to asbestos will occur while breaching walls, conducting ventilation, etc.

Before starting live fire training, repair holes in walls, floors, etc. that existed before the fire department acquired the structure or are a result of the previously mentioned non-fire training evolutions. Abnormal fire spread, falls, etc. can result from any openings in the construction. For safety purposes, repair any holes (existing or made by the fire department) before conducting RIT, ventilation or other training in the structure.

Once the department has decided to use the structure for live fire training, contact the local air quality or pollution control authority for the area and ask if there are any requirements for preparing acquired structures for burning and if a permit is required. Some air pollution control/air quality authorities require removal of asphalt shingles, petroleum-based floor coverings, plastic plumbing pipe, synthetic furnishings, etc. before granting permission to burn. Removal of electrical wiring, electrical outlets, wall switches and cover plates may be required because those items are plastic.

The structure may have exterior siding, insulation, floor tiles or mastic that contains asbestos. Test the structure for asbestos and remove any asbestos found before burning the structure. Asbestos abatement should be required before demolition and haul-off, so the expense of testing and abatement may be a wash for the property owner. Any HVAC systems still in place need to have the Freon or other gas removed. Disconnect all utilities. Provide a reliable source of water that is sufficient to control the fire and protect any exposures if the entire structure is on fire at once. The fire department needs to know where the runoff water is going as it will contain chemicals and contaminants and may need to be collected or diverted from ponds and streams.

If the structure is safe to burn and the fire department desires to conduct live fire training, the city must be ready to assume liability. MTAS legal staff has opined that the liability rests with the city. MTAS does not have a sample liability release, but NFPA does have a sample release as part of its recommendations for live fire training in acquired structures. The NFPA sample release mentions demolition of the structure as the reason the fire department is burning the structure. Air quality is a real concern, and most jurisdictions allow firefighters to burn a building for training but not for demolition. Therefore, if you use the sample language in the NFPA checklist, substitute “training” in place of “demolition” and have your agency’s attorney approve the release.

The department needs to locate, provide, and ensure that an adequate and reliable water supply is available for training evolutions, the RIT team, safety lines, and to protect exposures. If the structure is in an area protected by fire hydrants, the department may need to lay supply lines across roadways or across property owned by others. The department must coordinate any road closures, provide traffic flow, and obtain permission to access other property before starting training.

The department needs to provide logistics for the training evolutions. Staging areas, control of scene access, parking, media access (the department should invite the media to a live fire training day), personal hygiene facilities, refreshments for staff and trainees, and rehab for the trainees should be available when they exit the live fire evolution. Provide sufficient air bottles, a cascade system on the scene, or an air re-supply shuttle to ensure no one runs out of breathing air. Inspect all self-contained breathing apparatus (SCBA) and personal protective equipment before the live burn. Do not use any personal protective equipment with physical damage or missing components. Notify adjacent property owners well before the live burn. Assure that all personnel operating in the Immediately Dangerous to Life and Health (IDLH) atmosphere have conducted SCBA face-piece fit testing in accordance with OSHA 1910.134.

The fire department must take responsibility for preparing the structure so the training is safe. Follow NFPA Standard 1403 guidelines as a nationally recognized best practice. Safety must, at all times, be the primary concern when making preparations and decisions. Establish and use the incident command system and a personnel accountability system. Have emergency medical personnel and an ambulance available on the training ground. Use Class A fuels only and keep fuel loads to the minimum amount to provide sufficient smoke, heat and fire conditions to accomplish the training evolution’s goals and objectives while avoiding flashover. Ignite only one fire at a time in the structure. Safety at all times is essential.
