

# Wyoming County Live Burn Training Facility



## Standard Operating Guidelines

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## STANDARD OPERATING GUIDELINES

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## INTRODUCTION

The Wyoming County Live Burn Training Facility (burn tower) has been designed to afford training opportunities for various public safety disciplines. The main facility is comprised of a Fire Facilities, Inc.; steel fire training tower (Live Burn Training Facility or LBTF) which provides the basis for both “live fire” along with smoke conditions for training and skill enhancement for interior firefighters. The facility is adaptable to the point where rooms with “moveable” partitions in the two-story and parts of the four-story (2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> floors), allow law enforcement as well as other governmental agencies to utilize this for their tactical series of training evolutions.

To ensure the maximum effective use of this facility and the surrounding training grounds, this guideline has been developed. Identifying a process during operations as well as numerous safety guidelines aim to provide the best possible training with the highest margin of safety.

It is the intent of the Wyoming County Office of Emergency Services (OES) to provide a safe and realistic training facility as well as one which will enhance the learning opportunity and skill development of those who use this facility.

## Scope

This Standard Operating Guideline (SOG) applies to all personnel; including staff, instructors, students, visitors and others who may have an opportunity to use the Wyoming County Live Burn Training Facility and associated training grounds.

## Purpose

The purpose of this SOG is to minimize the risk to all participants, promote good housekeeping and ensure the maximum life of this building.

## Definitions

Assigned Instructor Briefing Checklist – The Assigned Instructor Briefing Checklist will be used as the minimum standard of safety. At no time will live evolutions be initiated without the appropriate safety briefing, inspection of Personal Protective Equipment (PPE), tour of the facility, appropriate staging of apparatus ensuring minimum required water supply and placement of hose lines. In addition, the location of the Command Post, Safety Officer position and location of emergency shutdown controls will be reviewed. If live fire evolutions are to be conducted, this briefing should include a review of the Temperature Monitoring Panel.

Clean-up - The removal and proper disposal of all items brought to or used during training evolutions, including debris left in burn room, the car fire area as well as waste generated during the training evolution.

Designated Safety Team – A Designated Safety Team shall be established and will consist of at least four (4), preferably six (6), interior qualified firefighters. This team will be assigned to a designated staging area for the duration of the live fire operations, unless otherwise released.

Emergency Services Observer (ESO) – Are designated as the Wyoming County Director of Fire and Emergency Management, the Fire Coordinator, a Deputy Fire Coordinator, or a State Fire Instructor who has been specifically trained (successful completion of Live Fire Training Safety and Conducting Live Fire Training courses required) and assigned to provide supervisory and safety support to County agencies wishing to use the Live Burn Fire Training Facility.

Evolution- A set of prescribed actions that result in an effective fireground activity.

Ignition Officer - An individual, who is not a student, shall be designated as the “ignition officer” to control the materials being burned.

Motor Pump Operator - An individual assigned to the operation of an engine during live burn operations. An MPO must be assigned to each engine used for an evolution that is both authorized and qualified to operate the engine.

Operations Area - Area defined as all areas where live fire and support operations are being conducted.

Participant – anyone actively involved in training evolutions including students, staff and instructors.

Safety Officer - An individual appointed by the requesting agency as qualified to maintain a safe working environment at all training evolutions.

Student - Any person who is present at the live fire training evolution for the purpose of receiving training.

Temperature Monitoring System (TMS) – The assigned ESO during live fire training shall turn on this monitoring device to monitor the burn room temperatures and ensure a safe live fire training event for firefighter's.

Training Grounds - For the purpose of this guideline, the area designated as the Live Burn Training Facility, the surrounding staging area, as well as the pond draft site comprise the geographical "training grounds; that area which comprises the Operations, Staging and Spectator areas.

### **General Use of Facility**

- The OES requires that each user be briefed on the contents of this SOG before using the facility. Copies of the SOG will be sent to each fire department and available on the OES website.
- A pre-burn plan shall be prepared and utilized during the pre-burn briefing. All features of the training area and structure(s) shall be indicated on the pre-burn plan. A copy will be submitted with fire department's request for use of the LBTF.
- The Fire Department Officer-in-charge or designee requesting the use of the facility will ensure that all students participating in a live burn will have successfully completed the New York State Firefighter I or equivalent firefighting certification unless currently enrolled in the Firefighter I course.
- Participants shall be in full Occupational Safety and Health Administration (OSHA) compliant protective clothing.
  - Students with beards or any facial hair that may interfere with a proper face

mask seal, shall not be allowed to wear SCBA or be permitted to participate in evolutions which may expose them to smoke or toxic environments.

- Spectators will be restricted to an area outside of the operations area. PPE is not required in this area.
- Problems concerning operational issues with the facility will result in termination of all activities. Activities are not to resume until the situation can be corrected.
- The Fire Department requesting use of the facility must make arrangements for emergency medical support personnel with appropriate equipment and supplies.
- Emergency medical support will include a minimum of one (1) certified EMS provider and basic medical equipment. The minimum requirement for the person serving as a medic for the fire department is a valid Certified First Responder (CFR or EMR).
  - Minimum medical requirements ***do not*** require a transporting ambulance be on site.
- Facility radio communications shall be assigned by the OES. (typically Fire Channel 3, 4, or 5 as designated by the ESO(s)).
- Because of the construction of the live burn facility, as well as the openness of the site, care must be exercised when conducting evolutions when electrical storms with lightning strike potential may pose a safety issue. Awareness of weather conditions, wind velocity and wind direction shall be maintained, including a final check for changes in weather conditions immediately before actual ignition.

### **Assigned Emergency Services Observer**

- The assigned ESO(s) shall be in full Occupational Safety and Health Administration (OSHA) compliant personal protective equipment (PPE) upon entering the training grounds
- Safety shall be the primary responsibility of assigned ESO(s) at all times. The secondary responsibility of the ESO(s) is the proper use and care of the training facilities.
- The assigned ESO(s) shall insure that a recognized departmental accountability system is used.
- The assigned ESO(s) shall have the authority and responsibility of keeping the training grounds risk-free. The assigned instructor(s) shall verify that a Fire

Department Safety Officer(s) have been selected prior to briefing the students.

- The facility shall be visually inspected for damage by the ESO(s) along with the Fire Department Safety Officer prior to use and at the end of the training evolution. Any damage or deficiencies noted will be reported in writing to the OES. Training shall not be permitted in the event burn building damage is severe enough to affect the safety of the participants.
- It is the responsibility of the assigned ESO(s) to postpone or terminate all activities in the event that any operational issues or problems have been identified with the facility; by notifying the OES immediately, and completing a written report to the OES within twenty-four (24) hours of occurrence or sooner to allow time for repair of the facility before the next planned training. Activities are not to resume until the situation can be corrected.
- The assigned ESO(s) will ensure that the facility is secured and all County-owned equipment is cleaned and stowed away. All trash, garbage and spent material will be picked up and disposed of by the agency using the Live Burn Training Facility or Training Grounds after all training evolutions are complete.
- The assigned ESO(s) is responsible for ensuring proper radio communication is in place to readily contact fire dispatch, ambulance or other help, if needed.
- The ESO(s) must ensure that all necessary injury forms are completed by the appropriate department and forwarded to the OES. The OES will forward them to The Wyoming County Workers Compensation Office.

### **Internal and External Instructors**

- No agency will be permitted to use the facility without an assigned ESO on site. The OES will arrange for an assigned ESO(s) to be present each time the facility is used.
- The assigned ESO(s) will not substitute for the Fire Department Safety Officer or Fire Department Training Officer.
- The Fire Department Chief Officer and Training Officer will be in charge of the Training Lesson Plan and its content, pending approval by the assigned ESO(s).
- The Fire Department Chief Officer or Training Officer to student ratio shall be a manageable ratio for both interior and exterior operations.

## **Fire Department Safety Officer**

- A minimum of one (1) Fire Department Safety Officer is required. The Fire Department Safety Officer shall not be assigned other duties that will interfere with his or her primary responsibility of safety.
- The Safety Officer shall have the authority, regardless of rank, to intervene and control any aspect of the operations when, in his/her judgment, a potential or actual danger, accident or unsafe condition exists.
- The Safety Officers responsibilities shall include, but are not limited to, the prevention of unsafe acts and the elimination of unsafe conditions
- The Safety Officer shall provide for the safety of all persons using the LBTF, training grounds and related training facility including students, instructors, visitors and spectators.
- The Safety Officer supervises additional Fire Department Deputy Safety Officers as needed. Additional safety personnel as deemed necessary by the Safety Officer may be placed strategically within the LBTF during multi-room training events.
- The Safety Officer ensures that all PPE, including self-contained breathing apparatus, Personal Alert Safety System, protective hoods and gloves are in satisfactory condition and operational. All PPE must be in serviceable condition and in compliance with current OSHA and NFPA standards.
- The Safety Officer shall monitor accountability both pre- and post-burn. All students are required to sign-in and those performing interior operations shall denote on appropriate forms.
- The Safety Officer ensures that the motor pump operator[s] (MPO) maintains their position at each engine during live burns.
- The MPO may not be an assigned instructor, Safety Officer or student in the class. If the MPO intends to perform training evolutions a secondary MPO must be assigned to this role.

## **Training Evolution Safety**

- Visual inspections the facility for damage prior to and following use will be performed by the ESO and Safety Officer.
- The facility shall be kept in a safe condition between evolutions and in a safe and clean condition before the user leaves the property. Debris hindering the access or egress of firefighters shall be removed before continuing.



- Prior to live burns, a pre-burn briefing session shall be conducted for all personnel involved in the evolution. Prior to conducting live burns in the burn building, all participants shall be required to have an orientation of the burn building. The location of simulated victims is not required to be disclosed, provided that the possibility of victims is discussed during the pre-burn briefing.
- The drill tower and burn building evacuation plan shall be verbally communicated and demonstrated to all involved participants. The evacuation signal is a continuous activation of an air horn. This sounding represents an emergency or perceived emergency and requires that all people exit the drill tower and burn building. Accountability will immediately be performed by the ESO and Safety Officer.
- Primary and secondary hose lines shall be a minimum of 1½-inch diameter. A minimum of one secondary hose line shall be provided to ensure adequate protection for the students in the burn building. The water supply for secondary hose lines must have an independent water source from the primary attack line.
- The OES will supply cars modified to meet NYSOFPC safety standards for use in car fire evolutions. No other vehicles are to be brought onto the property for use in live fire activities without the permission of the OES. The car fire area is required to have the minimum water supply available as outlined above. The vehicles must meet safety requirements which includes removal of the fuel tank, all pneumatic shocks either removed or “cut” including struts where applicable on the hood and trunk lid.
- Training evolutions are conducted using artificial smoke generated by the County owned “Smoke Fogger” in order to provide limited visibility without the use of live fire and heat. Evolutions using “artificial smoke” do not require the water supply requirement as outlined above, nor any of the other “live fire’ requirements.
- The decision to ignite the training fire shall be made by the Fire Department Chief Officer in Charge in conjunction with the assigned ESO(s) and the Safety Officer.
- A charged hose line shall accompany the Ignition Officer when he/she is igniting any fire. The only exception will be pan fires for extinguisher training. Safety for this evolution will include at least one fully charged, dry chemical extinguisher, manned while pouring fuel in the pan and during ignition.
- Live fire within the burn building shall be confined to the designed “burn room” on the first floor of the single story side.
- No more than one live burn will be permitted in the burn building at one time.

- No person(s) will be placed inside the burn building to play the role of a victim. Under NO circumstance will the use of live “victims” during live burn evolutions be allowed.
- Provisions will be made for the rest and rehabilitation of participants. A designated rehab area will be established under the direction of the Safety Officer with an adequate supply of drinking water available for participants. Rehab supplies are the responsibility of participating departments. All injuries and illnesses must be reported to the assigned **ESO(s)** at the earliest opportunity.
- The assigned ESO(s) will discontinue operations if the internal burn room temperature exceeds 700 Degrees Fahrenheit. After the pre-fire inspection of the burn room and prior to the ignition of the burn materials in the burn room, the electronic Temperature Monitoring System “TMS” will be tuned on to monitor and record the temperatures in the burn room during the live fire training.
  - If during the training evolution the temperature exceeds 700 degrees a yellow flashing light and an audible alarm will sound alerting all participants that the maximum has been reached and that steps should be taken to lower the temperature in the burn room.
  - The burn room temperatures can also be monitored real time by watching the screen on the TMS.
  - Upon the completion of the live fire training event the power shall be turned off to the TMS on the touch pad.
- After the last live burn is completed, prior to cleaning up of the burn building; the assigned ESO(s) shall insure that the door to the burn room and the ground level entrance door are open to allow air flow. The building exhaust fan shall then be run for a minimum of 3 minutes to ensure that the building is safe to enter without SCBA equipment on. The ESO must ensure the exhaust fan is shut off and the doors are shut and latched prior to leaving.

### **Drill Tower and Burn Building**

- A staging area will be designated to stage fire apparatus and ambulance(s), which are not part of the evolution, so as to not interfere with fire ground operations. Personal vehicles shall remain in the designated parking area.
- A spectator area will be designated.
- Restrooms are located in the main training building.

- All openings, including door and windows shall be inspected and operated; doors will remain unlocked, prior to any live burns in the burn building.
- All post-burn material shall be extinguished. As part of the final safety inspection, all burned up debris (that can not be reused) shall be removed from the burn room and deposited in the appropriate refuse site (55 gallon barrels will be provided for this.) The barrels will first be emptied of prior debris into the dumpster and the new debris placed in the empty barrel.

### **Inspection of Drill Tower and Burn Building**

- Documented inspections shall be completed annually by the OES and Wyoming County Buildings and Grounds. These will be visual inspections to identify any deficiencies, loose hardware or other defects. Inspections will be documented on **Attachment 3 - Live Structural Fire Training Facility Inspection.**
- Documented inspections shall be completed by the manufacturer (or their contractor actor) every 7 years.

### **Burn Building Fuels**

- The quantity of fuel used shall be limited to the amount necessary to meet the objective. The assigned ESO(s) will review and approve the fuel load. All burn material will be provided by or through the OES.
  - Example would be 150 lbs. of pallet-like material, excelsior, paper, cardboard, straw, hay and other ordinary combustibles.
- Class A fuels are the only fuels permitted in the burn building.
- Prohibited materials include pressure treated wood, rubber, tires and plastic materials, straw or hay treated with pesticides or harmful chemicals are prohibited in the burn building.
- Class B fuels, flammable or combustible liquids, or fuels that may be contaminated by toxic or unknown materials are prohibited from being used.

### **Water Supply**

- Pursuant to the requirements as developed by the New York State Office of Fire Prevention and Control (OFPC), an adequate water supply to extinguish any and all fires along with supporting a backup line will be provided. An Adequate Water Supply is defined as follows:

- One (1) Attack line @ 125 GPM

- One (1) Backup line @ 125 GPM
  - One (1) Safety Backup line @ 125 GPM = for a total of three (3) lines capable of flowing 375 gallons of water per minutes for 10 minutes, for total of 3,750 gallon of available water.
- Additionally, there will be two separate sources of water utilized. Example: an engine at draft supply with an attack and backup line; with a second engine at draft supplying a second backup line; another setup may include a tanker with a minimum of 1,250 gallons of available water providing supply to the backup line.

### **Non-firefighting Use of Burn Tower**

- The burn tower may be used for a number of scenarios that do not include live fire. Each proposed training will be evaluated by the OES to determine any additional safety precautions that should be taken.
- Law enforcement use of the burn tower will be at the discretion of the Director of Fire and Emergency Management and Sheriff.
  - Evolutions conducted by law enforcement and other agencies using firearms with live rounds as part of the training, require the “policing” of brass upon the conclusion of the training due to the significant slip/trip safety hazard imposed by the spent rounds for others using or working in the area.
- Agencies wishing to utilize for emergency medical services training, such as stairs chairs or mass casualty scenarios do not require an OES on-site.
- Hands on training such as rope rescue rappelling may be performed at the burn tower using existing anchor points fixed to the facility.
  - Bail out training may be performed with an ESO which does not require the use of fixed points due to the nature of the training.
- Hazardous materials training may also be performed at the burn tower. Any products used during the training must be removed immediately following and the facility must be hosed out prior to any firefighting operations. Appropriate air monitoring is required for the use of any hazardous materials.
- Other training or use will remain at the discretion of the OES.