

**PHOENIX REGIONAL
STANDARD OPERATING PROCEDURES**

TRAINING ACADEMY ON-SITE BURN BUILDING FIRES

M.P. 202.14A

12/25-R

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PURPOSE

The purpose of this procedure is to establish standard guidelines for conducting on-site training fires in the Training Academy burn building, while complying with NFPA Standard 1403. All other Phoenix Fire procedures will apply to training fires where applicable.

GENERAL USAGE

Any fire department member or outside agency wishing to use the burn building must first obtain permission from a Training Academy chief officer.

The time and date of the training drill must be scheduled with the Training Academy staff. Drills involving recruit training and departmental training always have first priority.

A Chief officer representing the Training Academy staff must be on-site for any live fire drills involving the facilities or the burn building. A fee may be charged to outside services/agencies.

Burn buildings have been designed specifically for the purpose of repeated live fire training evolutions and include safeguards that only become unacceptably hazardous through misuse and neglect.

All non-Phoenix Fire Department agencies must comply with all existing Phoenix Fire Department procedures relating to live burn training. A signed IGA must be in place for any agency to utilize the Phoenix Fire Department burn buildings.

COMMAND

One officer on the scene shall be designated as "Command" and will assume the Command functions.

Training Academy chief officer will assume senior advisor role.

A Command Post shall be established and positioned to afford maximum visibility of the structure, operating companies and fire conditions.

COMMUNICATIONS

Command is responsible for establishing radio communications with each company officer or training officer involved in the drill. Channel assignment must be coordinated with Dispatch and Deployment and all companies involved. Companies operating at the training fire will continuously monitor the assigned radio channel. All radios will be checked for proper functioning and correct channel prior to initiating training fire operations.

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SECTORS

To eliminate confusion, and provide adequate scene control, all personnel operating within the fireground perimeter shall operate under the direction of a sector officer. The fireground perimeter shall be defined as the hazardous area surrounding the burn structure and shall be determined by Command following guidelines stated in Fireground Safety.

The following sectors shall be established on all burn building fires.

Interior	Company or training officer directing interior suppression activities
Sector 1, 2	For upper floors, Sector 1, 2, 3, etc. may be used.
Rescue (RIC)	Provide a staffed, charged back-up line for <u>each fire attack team</u> , in position to (assist in fire extinguishment and rescue of interior personnel. This sector will be manned by experienced firefighting personnel (not recruit fire fighters), and each Rapid Intervention Crew (RIC) shall consist of a minimum of two fire fighters. The Safety officer shall be in charge of each RIC unit. There shall be one RIC Crew for each fire attack team.
Safety	The Safety officer or a safety representative will be in attendance at all structural training fires and will assume safety sector responsibilities. The safety sector will monitor personnel and fire conditions, and work with Command to ensure all safety procedures are complied with, and that risk to personnel is minimized.
Other Sectors	Other sectors may be established as necessary to control training/fire control -operations and to minimize risk to fire fighters.

SAFETY

The Safety officer shall have full authority to intervene and control or stop any aspect of the operations when in his/her judgment, a potential or real risk to personnel exists. He/she will not be assigned other duties that would distract from his/her safety responsibilities.

Additional Safety officers may be assigned to the training fire if the conditions dictate. Responsibilities of the Safety Officer(s) will include but not be limited to the prevention of unsafe acts and elimination of unsafe conditions.

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Company officers acting as instructors will be responsible for the direct supervision of assigned students and their safety and welfare, including the prevention of unsafe acts and the elimination of unsafe conditions.

Fire department personnel may operate on the roof at the ventilation prop to demonstrate proper vertical ventilation techniques during live fire.

The number of personnel involved in training fires often exceeds the number normally assigned at actual incidents. To reduce risk, and assist with scene management, training fire participants shall be formed into individual companies consisting of no more than four (4) members and be supervised by a company officer.

Exposing recruit fire fighters to live fire conditions presents special safety considerations. All fire fighters involved in burn building training fires shall have received training to meet the performance objectives of Firefighter I, NFPA 1001 in:

- Forcible Entry
- Protective Breathing Apparatus must meet NFPA 1970
- Fire Hose, Nozzles and Appliances
- Fire Streams
- Ladders
- Ventilation
- Rescue
- Safety
- Fire Behavior
- Safety
- Portable extinguishers
- PPE (Personal Protective Equipment must meet NFPA 1970)
- Overhaul
- Water Supply
- Building construction

Participants must also have received training in the following:

- Fire dynamics
- Fire behavior
- Nozzle techniques and door control

One officer on the scene shall be designated as an accountability officer and will assume the accountability functions.

To enhance accountability and to improve tracking of fire fighters in the Hot Zone, the "PASSPORT" system shall be used,

Personnel Accountability Report or "PAR" shall be used at the following accountability benchmarks:

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- Any report of a trapped or missing fire fighter
- By all crews reporting an "All Clear"
- At a report of fire under control
- Upon exiting the structure
- Sudden hazardous event
- Change from offensive to defensive mode
- At the discretion of Command

Passports will remain with the designated accountability officer near the "point of entry" to the Hot Zone. Upon entry, crews will turn in their PASSPORT. Upon exit, the crew must retrieve their PASSPORT. The accountability status board will contain only the PASSPORTS of those crews in the Hot Zone. The Hot Zone shall be clearly marked with fire line tape and understood by all participants.

No personnel shall be permitted to act as a victim(s) during training fires.

To reinforce safety procedures, a protective clothing and equipment inspection shall be conducted on all fire fighters immediately prior and after engaging in suppression activities. The inspection shall ensure that all clothing and equipment is serviceable and worn in a manner to provide the maximum personal protection.

REQUIRED FIRE EQUIPMENT AND COMPANIES

Two separate sources of hydrant water supply shall be established (two engine companies minimum). The water supply shall be test flowed by the forward pumper to insure adequate water supply of a minimum of 500 gallons per minute.

All fire attack hoselines shall be supplied by one pumper with its own hydrant water supply. The RIC unit backup hoselines shall be supplied by a second pumper using a separate hydrant water supply. All hoselines will be flow tested to confirm a minimum of 95 gpm.

An ALS company and a rescue shall be on scene prior to the start of the burn.

BURN BUILDING PREPARATION

All doors, windows, ventilation props, and standpipes necessary for the training drill shall be checked and operated prior to any live fire conditions to ensure correct operation.

Burn buildings shall be left in a safe condition upon completion of each live fire exercise. Debris hindering the access or egress of fire fighters shall be removed before continuing further operations.

STARTING THE FIRE

The use of flammable or combustible liquids, as defined in NFPA-30, shall be prohibited for use

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in live fire training evolutions. Only Class A materials shall be used in live fire training. A charged and manned hose line shall be in position to provide additional protection. The ignition process will be conducted under the direct supervision of the Safety Officer.

Command shall assign an experienced fire fighter to become "FIRESTARTER." It is the responsibility of the FIRESTARTER to initially ignite the fire. FIRESTARTER shall also regulate the fuel load for each evolution to maintain a tenable atmosphere inside the burn rooms.

The ignition of the fire shall be coordinated through Command so the burn rooms do not become overheated before attack teams make entry.

Only one floor of the building shall be ignited during each Scenario. Multiple floor burns are not allowed.

PRE-PLANNING

A pre-fire tour of the burn building is required.

SCENARIOS

The Officer in charge shall develop a Scenario for each evolution based upon information obtained during the pre-plan and building preparation stages.

The Scenario shall specify:

- Points of ignition
- Amount of fire load
- Position of entry attack lines
- Position of RIC units
- A Rescue Plan
- Accountability Plan

All personnel involved in the drill shall be instructed on each element of the attack plan prior to igniting the structure and shall receive a walk-through briefing of the building prior to each training fire. An evacuation plan and signal shall be reviewed and agreed upon.

NOTIFICATION OF TRAINING FIRE ACTIVITIES

Prior to conducting burn building training fires, the following notification must be made.

- Dispatch & Deployment to obtain incident number
- Online form notification to Maricopa County Air Quality Control

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ON-SITE BURN OPERATIONS CHECKLIST

- Adequate fire apparatus on site
- ALS company on-scene
- Rescue on-scene
- Pumpers flow tested for 500 gpm water supply from separate hydrants
- Separate hydrant water sources for each pumper
- Fire load; conservative; not excessive
- Ignition location determined
- Safe ignition fuel utilized
- FIRESTARTER in full protective clothing/SCBA
- Protection line in place for FIRESTARTER; manned and charged
- Training Chief Officer on-scene
- Safety Officer (or representative) on-scene
- Command and sectors established
- Command location identified and announced
- All radios checked for proper functioning/channel/assigned unit and member
- Sectors established
 - Interior
 - Exposure(s)
 - RIC(s)
 - Rehab
 - Safety
 - Other
- Attack lines in place, flow tested for a minimum of 95 gpm each
- RIC lines in place, flow tested for a minimum of 95 gpm each
- RIC staffed by minimum of two fire fighters
- One RIC unit in place (with hoseline) for each attack entry team
- Attack lines from one pumper, RIC lines from a separate pumper
- Fire attack entry and RIC units in full protective clothing, PASS and SCBA checked for proper functioning
- Company officers in charge of each attack and RIC unit
- Scenario established and understood by all
- Walk through briefing conducted for all crews
- Rescue plan established and understood by all
- PASSPORTS and status boards near point of entry
- Rehab established
- Decon established

POST BURN ACTIVITIES

The building shall be left in a safe condition upon completion of live fire training. All hot spots shall be completely extinguished to prevent re-kindle. It is recommended that an infrared camera be utilized to locate hot spots. The interior of the A building shall be hosed off including

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all walls and floors and around the exterior of the building. Members shall be rehabbed and re-hydrated. Protective clothing shall be sent to resource management for cleaning and SCBA's shall be rinsed clean. All participants are encouraged to shower within one hour at the end of the burn.