



Division 04 **Education and Training**

Chapter 05 – Live Fire Training in Acquired Structures

January 2009

POLICY

The purpose of this General Order is to establish standard guidelines for conducting training fires in acquired structures.

The Prince George’s County Fire/EMS Department conducts live fire training evolutions in acquired structures to assist in the development of all employees/members. To ensure the safety of all personnel, the Department’s Live Fire Training Procedures in acquired structures have been updated to reflect requirements in the 2007 edition of NFPA 1403, Standard on Live Fire Training Evolutions.

This policy does not prohibit the use of acquired structures for training not related to live burns. Acquired structures may be used for forcible entry, ventilation, overhaul and other fire related training.

DEFINITIONS

Acquired Structure - A building or structure acquired by the Prince George’s County Fire/EMS Department from a property owner for the purpose of conducting live fire training evolutions. This will also apply to structures constructed for live fire demonstrations.

Live Fire Training Structure – A structure specifically designed for conducting live fire training evolutions on a repetitive basis.

MICRB Fire Instructor – Maryland Instructor Certification Review Board (MICRB) instructor that meets all instructor training requirements set forth in COMAR.

An MICRB fire instructor must be present for any live fire training that is required for the training certifications course. Fire personnel under basic fire training must be supervised by an MICRB fire instructor when involved in live fire training.

MFSPQB – Maryland Fire Service Personnel Qualifications Review Board

Safety Officer - Certified MFSPQB FO II and Instructor II. This person shall have successfully completed a NFPA 1403 compliance training program and an Incident Safety Officer Compliance training program. The Safety Officer shall have the authority, regardless of rank, to intervene and control any aspect of the operations when a potential or actual danger, accident, or unsafe condition exists.

Lead Instructor - Certified MFSPQB FO II and Instructor II. This person shall have successfully completed a NFPA 1403 compliance training program.

Rapid Intervention Crew (RIC) – shall be led by a certified MFSPQB FO II and Instructor II with three (3) firefighters with MFSPQB FF II certification or greater.

Interior Instructor - Certified MFSPQB FO II and Instructor II. This person shall have successfully completed a NFPA 1403 compliance training program. This instructor will be responsible for all evolutions conducted inside the acquired structure including the ignition of all training fires.

PROCEDURES

1. General Provisions



PRINCE GEORGE'S COUNTY, MARYLAND FIRE/EMERGENCY MEDICAL SERVICES DEPARTMENT GENERAL ORDERS

All live fire training in acquired structures conducted within Prince George's County must be approved and coordinated by the Prince George's County Fire/EMS Training Academy. Projects considered for approval must provide rare or unique training opportunities that cannot be replicated in a training facility, as well as significantly contribute to the aptitude of Department operations. Examples include, but are not limited to, high-rise buildings in which multiple evolutions can be performed, large commercial complex that provide training opportunities to a substantial segment of the Department, or other large scale projects that involve numerous activities or unique public education opportunities.

Once a project has been identified, the Prince George's County Fire/EMS Department Battalion Chief assigned to the battalion in which the project is located and/or the Volunteer Chief from the first due response area will submit a written proposal to the Director of the Fire/EMS Training Academy for preliminary review. If the proposed project meets the aforementioned criteria, the Director of the Fire/EMS Training Academy will assign a team of Academy instructors to the proposed project.

The Director will assign instructors the following positions to explore the feasibility of conducting the project:

- **Logistic Officer** –The Logistics Officer will identify the departmental resources necessary for the project, establish a list of supplies and a time frame for procurement, and work with volunteer participants to obtain commitment to assign equipment and supplies for the project.
- **Planning Officer** – The Planning Officer will establish a comprehensive list of training evolutions and a timetable in which all evolutions will

be conducted, provide an overview on how the project will effect the surrounding communities, and will seek input from Emergency Operations to determine the operational impact.

- **Finance Officer**– The Finance Officer will provide a comprehensive plan on the financial impact of the project including, but not limited to, the cost of preparation of the project for training, the cost of supplies as outlined by Logistics Officer, and the cost of compensation for the instructors.
- **Safety Officer** – The Safety Officer will provide a complete overview of the safety concerns pertaining to training in the project location.
- **Liaison Officer** – The Liaison Officer will communicate with all agencies, both County and State, that may be affected by or have a legislative interest in the project. All communications will be forwarded to the Fire/EMS Training Academy Director. The Liaison Officer, in conjunction with the Departmental PIO, will establish contact with all surrounding communities and make the effected communities aware of the Fire/EMS Department's interest in this project. All communities will be made aware of possible effects, i.e. road closures and smoke, and the Liaison Officer will document community reactions; this documentation will then be forwarded to the Fire/EMS Training Academy Director.

The team of Academy instructors, along with the first due Prince George's County Fire/EMS Department Battalion Chief, will complete the Fire/EMS Department Burn Package (*Copy Attached*) and submit it, along with any other appropriate documentation, for



approval. Upon approval of a project, the Director of the Fire/EMS Training Academy or his/her designee will become the Incident Commander. Moreover, an Operations Commander will be appointed to oversee each training evolution, and a list of MICRB/MFSPQB Level II instructors will be established for the project. The Operations Commander will ensure that all instructor positions are filled for each evolution, as outlined in the Fire/EMS Training Academy Burn Procedures.

2. Burn Procedures

All live fire evolutions will be conducted in accordance with established Prince George's County Fire/EMS Training procedures and will follow all requirements in *NFPA 1403, Standard on Live Fire Training Evolutions 2007 Edition, Chapter 4. Acquired Structures*. All applicable local, state, and federal guidelines will also be followed.

REFERENCES

National Fire Protection Agency, National Fire Code 1403, *Standard on Live Fire Training Evolutions 2007 Edition*

FORMS/ATTACHMENTS

Prince George's County Fire/EMS Acquired Structure Package

Prince George's County Fire/EMS Department



PROCEDURES, FORMS, AND STANDARDS FOR LIVE FIRE
TRAINING EVOLUTIONS IN ACQUIRED STRUCTURES

ACQUIRED STRUCTURE PACKAGE

STRUCTURE ADDRESS _____
DATE OF EVOLUTION _____
INSTRUCTOR-IN-CHARGE _____
INSTRUCTOR CONTACT # _____
SAFETY OFFICER _____
SAFETY OFFICER CONTACT # _____

NOTE: A copy of NFPA 1403 (Ed. 2007) "Standard on Live Fire Training Evolutions" shall be attached to the end of this package and applied to its entirety whenever a structure is going to be used for live fire training.

Prince George's County Fire/EMS Department

Acquired Structure Package

Instructor-in-Charge:

You are reminded that although this package contains a check list of all actions and the necessary forms that must be used throughout the planning, inspection, notification, evolution management, and documentation phases of live fire training; General Order _____ Training Evolutions in Acquired Structures, and NFPA 1403 should also be used as source references.

All documentation must be reviewed and approved by the Fire/EMS Training Academy Director and/or his/her designee prior to initiation of the evolutions.

Post Acquired Structure Package must be forwarded to the Director of Fire/EMS Training Academy within one (1) week of completed Live Fire Training Evolution.

The Instructor-in-Charge shall ensure that all steps on the checklist are completed and shall not deviate from this Acquired Structure Package.

Instructor-in-Charge Signature

Date

DEFINITIONS:

1. **Instructor-in-Charge** – Certified MICRB – Level II, MFSPQB FO II and Instructor II or equivalent. This person shall have successfully completed a NFPA 1403 compliance training program and an Incident Safety Officer compliance training program or equivalent.
2. **Safety Officer** - Certified MFSPQB FO II and Instructor II or Equivalent. This person shall have successfully completed a NFPA 1403 compliance training program and an Incident Safety Officer compliance training program or equivalent.
3. **Lead Instructor** - Certified MFSPQB FO II and Instructor II or equivalent. This person shall have successfully completed a NFPA 1403 compliance training program or equivalent.
4. **Ignition Officer** - Certified MFSPQB FO II and Instructor II or equivalent. This person shall have successfully completed a NFPA 1403 compliance training program or equivalent. Responsible for igniting fires for training evolutions.
5. **Instructor** - Certified MFSPQB FO I and Instructor I or Equivalent. This person shall have successfully completed a NFPA 1403 compliance training program or equivalent.
6. **Student (participant)** - Certified MFSPQB FF I or equivalent.
7. **RIC Team** – shall be led by an Instructor with three (3) firefighters with FF II Certification or greater.
8. **Department Safety Officer** (Volunteer or Career, as designated by the County Fire Chief) shall have successfully completed a NFPA 1403 compliance training program.
9. **An Observer** is one who has not yet attained the FF I Certification and cannot participate in a Live Fire Acquired Structure training evolution. An Observer can observe with an assigned Instructor in a safe location, designated by the Instructor-in-Charge and/or the Safety Officer.
10. **Acquired Structure** - A building or structure acquired by the Prince George's County Fire/EMS Department from a property owner for the purpose of conducting live fire training evolutions.
11. **Live Fire Training Structure** – A structure specifically designed for conducting live fire training evolutions on a repetitive basis.



PERMISSION TO BURN RELEASE FORM

The undersigned building owner, _____ and his/her
Successors, heirs, assigns, and personal representatives (the "Building Owner), hereby
authorize, grant and convey unto the Prince George's County Fire/EMS Department (the
"Fire/EMS Department") all rights and privileges to enter upon Building Owner's
property and to burn a certain building or structure presently locate at
_____, MD., 2____, and owned by the Building
Owner ("the Building"), which Building has previously been identified and designated by
the Building Owner to _____, Chief of the Prince George's
County Fire/EMS Department, as the building or structure to be razed by burning in
connection with the Fire/EMS Department's Live Fire Training Program.

In consideration for the services provided in razing the Building, the Building
Owner herby agrees to hold Prince George's County on behalf of its Fire/EMS
Department, its successors and assigns, its officers, its directors, it employees, its
volunteers, and its agents (the "indemnified Parties") harmless from and against any and
all claims, suits, losses, demands, or related causes of action for damages, including, but
not limited to, any claims for any damage to the Building or any part thereof or any
contents therein or claims that may result from injury or death, accidental or otherwise,
during, or otherwise in any way arising out of razing of the Building by burning on
Building Owner's property. Building Owner herby represents and warrants to the Prince
George's County Fire/EMS Department that Building Owner owns the Building.

Building Owner understands and acknowledges that the Prince George's County
Fire/EMS Department will raze the Building by burning as a part of the Fire/EMS
Department's Live Fire Training Program and that the razing of the Building by burning
will benefit Building Owner inasmuch as Building Owner originally contemplated to
razing and demolition of the Building.

Dated at _____, this ____ day of _____, 20____

Building Owner: By: _____

Witness: _____

Print Name and Title: _____

Witness: _____

Building Owner's Address: _____

Building Owner's Telephone# _____



PRINCE GEORGE'S COUNTY, MARYLAND
FIRE/EMS DEPARTMENT



ADJACENT PROPERTY LETTER

(DATE)

Dear Local Resident:

The (PGFD or VFD) Department will be conducting a training exercise in your neighborhood on (DATE) from (TIME) through (TIME). Specifically, the house located at the following address will be demolished through the use of controlled burns within the structure. Ultimately, the house will be leveled.

The house is located at (STREET ADDRESS).

This exercise might produce a minor inconvenience to you. Among them could be; traffic congestion along (STREET NAME), smoke in the area, or discoloration in your water while the exercise is going on, due to the use of a fire hydrant along (STREET NAME).

We appreciate your support during this valuable training experience. If you have any questions regarding the event, please do not hesitate to contact me at any one of the numbers listed below.

Sincerely,

(INSTRUCTOR-IN-CHARGE)

(CONTACT PHONE NUMBERS)

1. Prince George's County Fire/EMS Department Permission to Burn Form completed by property owner.

Comments: _____

2. Attach photocopy of deed or Maryland State Real Property Tax record with Owner reference to property.

Comments: _____

3. Initial building inspection to be completed two (2) weeks prior to Live Fire Training Evolution by a PGFD Department Safety Officer and copy sent to Instructor-in-Charge of Live Fire Training Evolution for repairs to be made.

Comments: _____

4. Instructor-in-Charge of Live Fire Training Evolution notified of discrepancies needing repair after the initial building inspection.

Comments: _____

5. Final building inspection made by a PGFD Department Safety Officer, the day of the Live Fire Training Evolution, who will ensure that all deficiencies are corrected.

Comments: _____

6. Instructor-in-Charge and Safety Officer of Live Fire Training Evolution to review the attached standard entitled "NFPA 1403 (Ed. 2007) – Standard On Live Fire Training Evolutions in Structures." Copies of training qualifications must be attached to this Acquired Structure Package.

Comments: _____

7. Site Plan drawn and photo copies given to Instructor-in-Charge of Live Fire Training Evolution, one (1) week prior to Live Fire Training Evolution.

Comments: _____

8. Interior building plan drawn and photo copies given to Instructor-in-Charge of Live Fire Training Evolution, one (1) week prior to Live Fire Training Evolution.

Comments: _____

9. Fire Flow Demand Calculated, a copy attached, and one (1) given to the Instructor-in-Charge of Live Fire Training Evolution, one (1) week prior to Live Fire Training Evolution.

Comments: _____

10. Number of pumpers determined to ensure item #9 is accomplished.

Comments: _____

11. Water source determined. Primary and secondary water source identified.

Location #1: _____

Location #2: _____

12. Attach copies of burn and raze permits from Prince George's County and City (if applicable), obtained by the owner and/or Prince George's County Fire/EMS Department and/or Local Volunteer Fire/EMS Department.

Comments: _____

13. Written notification made to all affected police agencies, if necessary. Notification by email notification is acceptable. Attach copies of notification emails to this Package.

Comments: _____

14. Written notification made to owners and users of adjacent property of date, time, and location of Live Fire Training Evolution, one (1) week prior to Live Fire Training Evolution. Attach one copy of letter with address distribution listing.

Comments: _____

15. Notification to Public Safety Communications of date, time, and location of Live Fire Training Evolution, one (1) week prior to Live Fire Training Evolution. Notification by email notification is acceptable. Attach copy of notification email to this Package.

Comments: _____

16. Acquired Structure Package delivered to Instructor-in-Charge.

Comments: _____

17. Written releases from: Attach copies.
 Agency: Electric Co. Letter dated: _____
Telephone Co. Letter dated: _____
Gas Co. Letter dated: _____
Water Co. Letter dated: _____

Comments: _____

18. Proof of canceled insurance in writing. Attach copy.

Comments: _____

19. No air quality alerts in effect. In the event of a Red Ozone Action Day, the event shall be postponed and notification made to Prince George's County Environmental Health Office, Environmental Engineering at (301)-883-7681, to reschedule the event as it pertains to permits.

Comments: _____

20. Notifications made to: (Name & By Whom) two (2) weeks prior to Live Fire Training Evolution.

PGFD Chief's Executive Officer	_____
PGFD Adm. Compliance Lt. Colonel	_____
PGFD EOC Lt. Colonel	_____
PGFD MGMT. SVCS. Lt. Colonel	_____
PGFD SOC Lt. Colonel	_____
PGFD Director of Fire/EMS Training Academy	_____
PGFD EOC Operational Safety Officer	_____
PGFD Fire/EMS PIO	_____
PSC Supervisor	_____
Local City Officials, if applicable	_____

(Notification by email notification is acceptable. Attach copies of notification emails to this Package.)

21. Acquired Structure Package (originals) submitted to Director of the Fire/EMS Training Academy, two (2) weeks prior to Live Fire Training Evolution, for approval. Note, agency permits may be pending.

Comments: _____

Signatures are required.

Instructor-In-Charge:

Signature *Date*

Safety Officer:

Signature *Date*

Approved:

Signatures are required.

**Fire/EMS Training
Academy Safety
Officer:**

Signature *Date*

**Director of the
Fire/EMS Training
Academy:**

Signature *Date*

INITIAL BUILDING INSPECTION

- | OK | PROBLEM |
|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> Building inspected to determine structural integrity. |
| <input type="checkbox"/> | <input type="checkbox"/> All utilities disconnected from acquired building. |
| <input type="checkbox"/> | <input type="checkbox"/> Highly combustible interior wall and ceiling coverings removed. |
| <input type="checkbox"/> | <input type="checkbox"/> Holes in walls, floors, and ceilings patched. |
| <input type="checkbox"/> | <input type="checkbox"/> Heavy materials removed from above training area. (or area sealed from activity) |
| <input type="checkbox"/> | <input type="checkbox"/> Windows checked and in working order. |
| <input type="checkbox"/> | <input type="checkbox"/> Exterior and interior doors checked and in working order. Doors can be opened or closed as needed. (Not nailed or barricaded) |
| <input type="checkbox"/> | <input type="checkbox"/> Closets and dead end areas identified to be secured and/or closed off. |
| <input type="checkbox"/> | <input type="checkbox"/> Stairways made safe with railing in place. |
| <input type="checkbox"/> | <input type="checkbox"/> Chimney checked for stability. |
| <input type="checkbox"/> | <input type="checkbox"/> Fuel tanks and closed vessels removed or adequately vented. |
| <input type="checkbox"/> | <input type="checkbox"/> Unnecessary inside and outside debris removed. |
| <input type="checkbox"/> | <input type="checkbox"/> Porches and outside steps made safe. |
| <input type="checkbox"/> | <input type="checkbox"/> Cisterns, wells, cesspools, and other ground openings fenced or filled. |
| <input type="checkbox"/> | <input type="checkbox"/> Hazards from toxic weeds, hives, and vermin removed. |
| <input type="checkbox"/> | <input type="checkbox"/> Hazardous trees, brush and surrounding vegetation removed. |
| <input type="checkbox"/> | <input type="checkbox"/> Exposures such as buildings, trees, and utilities removed or protected. |
| <input type="checkbox"/> | <input type="checkbox"/> All extraordinary exterior and interior hazards (asbestos, if applicable) remedied. |

Problems found and corrective action if necessary:

Date Inspected

Department Safety Officer Signature

FINAL BUILDING INSPECTION

- | OK | PROBLEM | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Building inspected to determine structural integrity. |
| <input type="checkbox"/> | <input type="checkbox"/> | All utilities disconnected from acquired building. |
| <input type="checkbox"/> | <input type="checkbox"/> | Highly combustible interior wall and ceiling coverings removed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Holes in walls, floors, and ceilings patched. |
| <input type="checkbox"/> | <input type="checkbox"/> | Heavy materials removed from above training area (or area sealed from activity). |
| <input type="checkbox"/> | <input type="checkbox"/> | Ventilation openings of adequate size pre-cut for each separate roof area. |
| <input type="checkbox"/> | <input type="checkbox"/> | Window checked and operated, openings closed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Exterior and interior doors checked and in working order. Doors can be opened or closed as needed. (Not nailed or barricaded) |
| <input type="checkbox"/> | <input type="checkbox"/> | Closets and dead end areas identified secured and/or closed off. |
| <input type="checkbox"/> | <input type="checkbox"/> | Stairways made safe with railing in place. |
| <input type="checkbox"/> | <input type="checkbox"/> | Chimney checked for stability. |
| <input type="checkbox"/> | <input type="checkbox"/> | Fuel tanks and closed vessels removed or adequately vented. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unnecessary inside and outside debris removed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Porches and outside steps made safe. |
| <input type="checkbox"/> | <input type="checkbox"/> | Cisterns, wells, cesspools, and other ground openings fenced or filled. |
| <input type="checkbox"/> | <input type="checkbox"/> | Hazards from toxic weeds, hives, and vermin removed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Hazardous trees, brush and surrounding vegetation removed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Exposures such as buildings, trees, and utilities removed or protected. |
| <input type="checkbox"/> | <input type="checkbox"/> | All extraordinary exterior and interior hazards (asbestos, if applicable) remedied. |

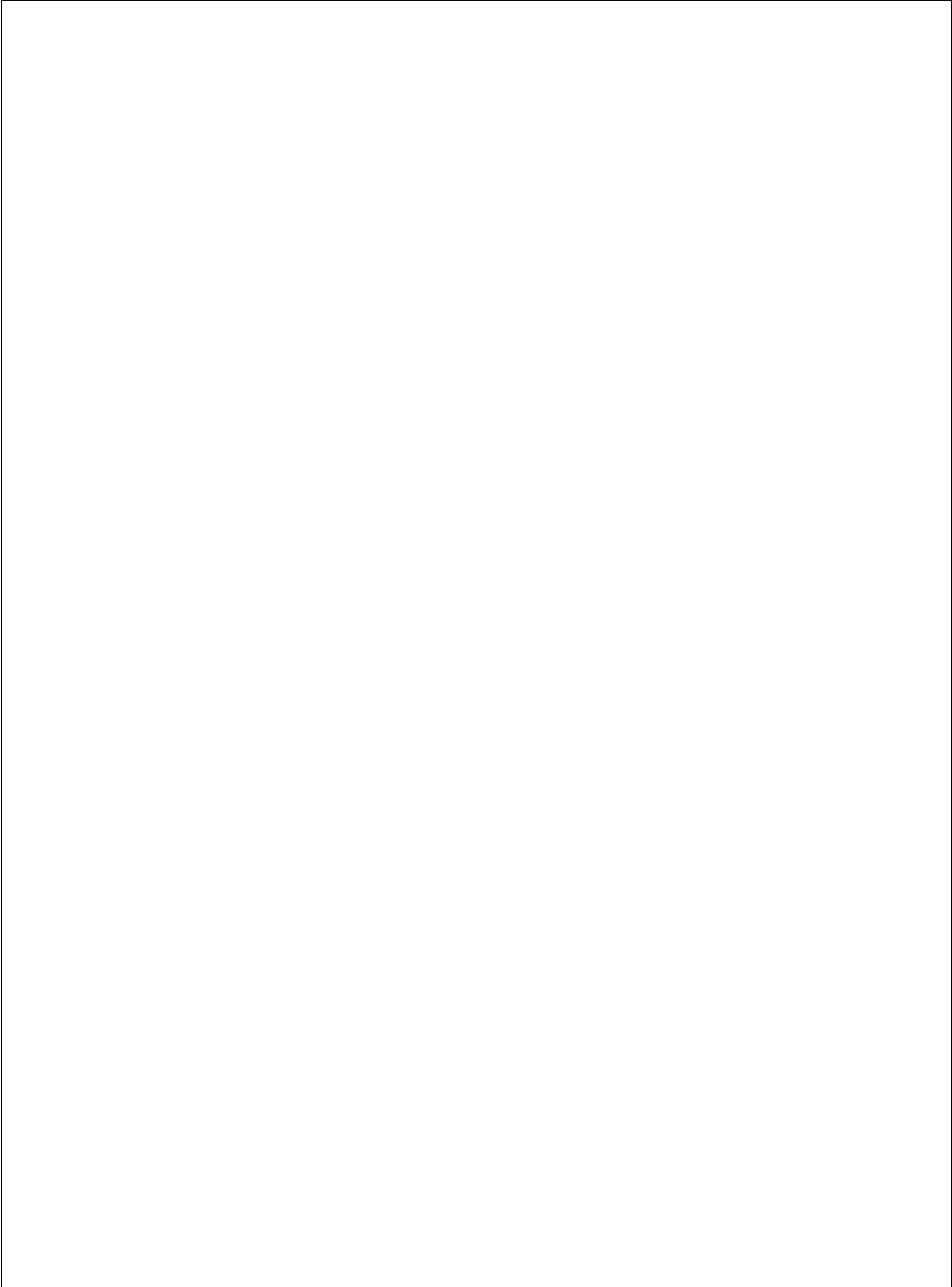
Problems found and corrective action if necessary:

Date Inspected

Department Safety Officer Signature

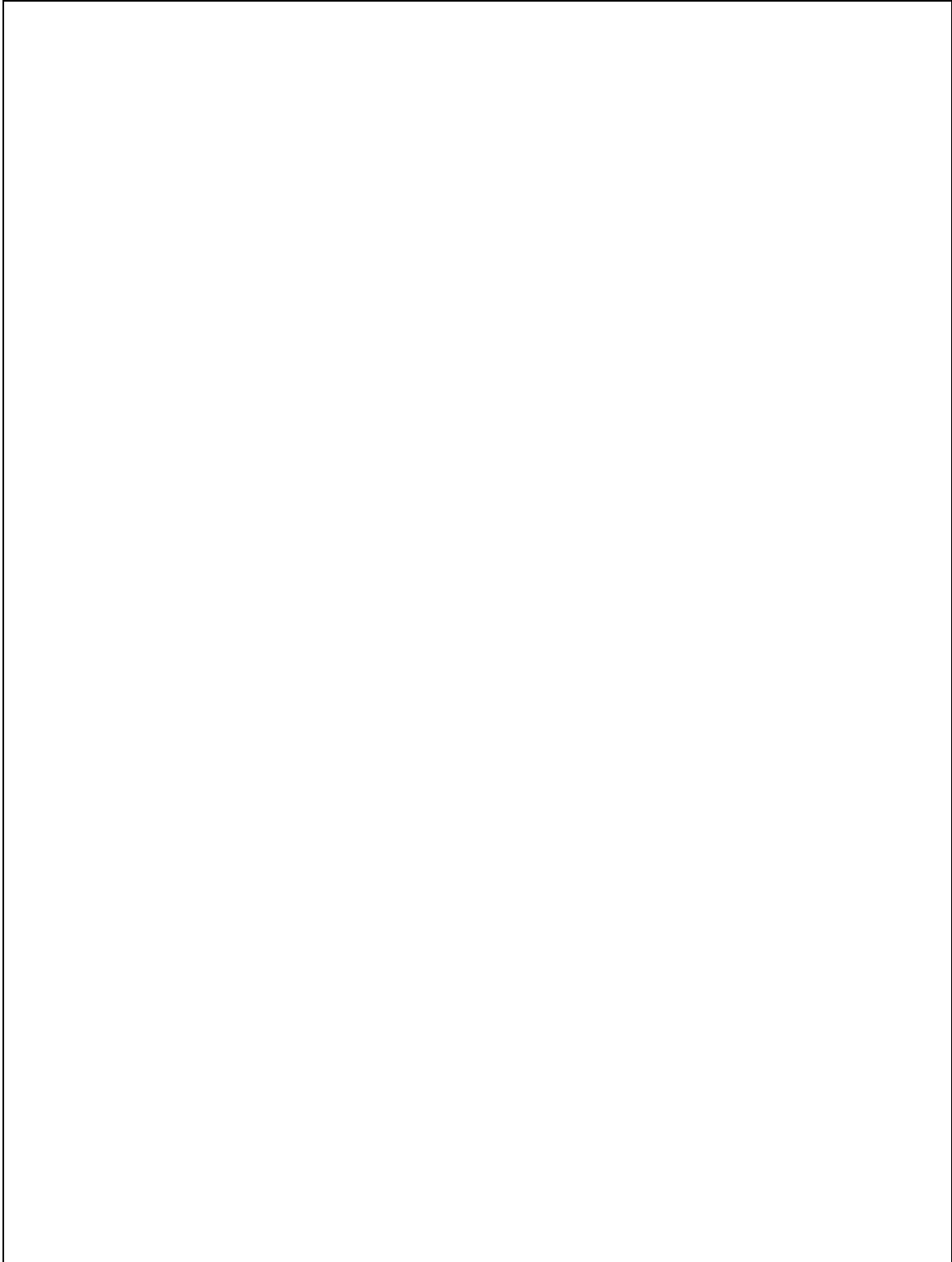
SITE PLAN FOR _____

Show: Structures, drives, roadways, fire hydrant locations and adjacent structures.



BUILDING PRE-PLAN FOR _____

(Show: All floor level floor plans (basement, first, second, etc.)
and show the locations of interior and exterior doors.)



FIRE FLOW CALCULATIONS

(L' X W' = SQ. FT. / 100 gpm per 100 SQ. FT.)

A large, empty rectangular box with a thin black border, occupying most of the page. It is intended for handwritten or printed calculations related to fire flow.



Prince George's County Fire/EMS Training Academy Post Injury Safety Report

Description of Training Activity

Number of Certified Instructors

Number of Support Instructors

--

Injuries sustained

--

Safety Issues

--

Recommendations



Signature

Date

Printed Name (Last, First, Rank)

PRE BURN PLANS

NOTES:

Evolution # _____

Fire Location _____

Objectives _____

Strategies _____

of Crews _____ # of Personnel _____

Evolution # _____

Fire Location _____

Objectives _____

Strategies _____

of Crews _____ # of Personnel _____

***NOTE* This completed document must be included with this Package for approval.**

PRE BURN PLANS

NOTES:

Evolution # _____

Fire Location _____

Objectives _____

Strategies _____

of Crews _____ # of Personnel _____

Evolution # _____

Fire Location _____

Objectives _____

Strategies _____

of Crews _____ # of Personnel _____

***NOTE* This completed document must be included with this Package for approval.**

LIVE FIRE TRAINING EVOLUTIONS IN ACQUIRED STRUCTURES

PERSONNEL ROSTER

PAGE ____ OF ____

DATE: _____
LOCATION: _____
COMPANY(S): _____
INSTRUCTOR-IN-CHARGE: _____
SAFETY OFFICER: _____

	NAME:	CERTIFICATION:
LEAD	_____	_____
INSTRUCTORS:	_____	_____
	_____	_____
INSTRUCTORS:	_____	_____
	_____	_____
STUDENTS:	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

- * Use additional roster if more space is needed.
- ** Students not affiliated with the PGFD/EMS Department must provide their FF I Certifications and written approval from their Department Chief on-site.
- *** Students can be added on-site, but must provide their FF I Certifications and written approval from their Department Chief on-site.
- **** Attach copies of on-site Student's Certifications and approvals to Post Acquired Structure Package.

Live Fire Training Medical Parameters

The medical parameters shall be set by the Instructor in Charge and the EMS/Rehab Officer prior to any evolutions. The final decision on allowing a person to begin or continue training must be based on the best judgment of the on site medical personnel according to all the information available in each individual situation. Students and instructors should not be allowed to begin or continue training against medical advice. The Instructor in Charge shall ensure that medical advice is followed and not override that advice.

A student or instructor who does not meet parameters set by the Instructor in Charge and the EMS/Rehab Officer should be allowed to extend his or her stay in rehab and then be reevaluated. If after a reasonable period, in the opinion of the EMS Officer, the set parameters cannot be met, the person should be removed from further participation for the remainder of the day and the lead instructor should be notified.

NOTHING IN THE SET PARAMETERS IS TO REPLACE THE JUDGEMENT OF ON SITE MEDICAL PERSONNEL THAT WOULD INDICATE THAT A PERSON IS IN MEDICAL DISTRESS AND IN NEED OF IMMEDIATE TRANSPORT TO A MEDICAL FACILITY.

THIS FORM SHOULD BE TURNED IN TO THE INSTRUCTOR IN CHARGE AS PART OF THE BURN PACKAGE.



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___



Live Burn Accountability

Location: _____ Date: _____

Individual Name: _____ Company: _____

VITAL SIGNS	B/P	RESP.	PULSE	SKIN	TAKEN BY:
Base Line					
Post Entry #1					
Post Entry #2					
Post Entry #3					
Post Entry #4					

PERSONNEL/TURNOUT GEAR INSPECTION:

Coat: _____ Pants: _____ Helmet: _____ Boots: _____

Gloves: _____ Hood: _____ SCBA: _____ Pass: _____

Problems with Personnel/Gear: _____

Signature of Lead Instructor: _____ Date: ___/___/___

Signature of Safety Officer: _____ Date: ___/___/___

RESPONSIBILITIES OF INSTRUCTOR-IN-CHARGE

(To be completed prior to start of Live Fire Training Evolution)

1. Plan and coordinate all training activities.
2. Monitor activities to ensure safe practices.
3. Inspect building integrity prior to and after each Live Fire Training Evolution.
4. Assign instructors:
 - Attack hose lines.
 - Back-up hose lines.
 - Functional assignments.
 - Teaching assignments.
5. Brief instructors on responsibilities:
 - Accounting for assigned students.
 - Assessing student performance.
 - Clothing and equipment inspection.
 - Monitoring safety.
 - Achieving tactical and training objectives (Pre Burn Plan / outline).
6. Assign coordinating personnel as needed:
 - Emergency medical services. (BLS unit on location for the duration of the entire Live Fire Training Evolution).
 - Communications.
 - Water supply.
 - Apparatus staging.
 - Equipment staging.
 - Breathing apparatus.
 - Rehabilitation (rehab) area.
 - Recon area.
 - Public relations. (if needed)
7. ***Ensure no more than nine people are in structure during a Live Fire Training Evolution.***

RESPONSIBILITIES OF INSTRUCTOR-IN-CHARGE (continued)

(To be completed prior to start of Live Fire Training Evolution)

8. *Sequential burning plan in accordance with Sections:*

4.4.13 A search of the acquired structure shall be conducted to ensure that no unauthorized persons, animals, or objects are in the acquired structure immediately prior to ignition.

4.4.14 No person(s) shall play the role of a victim inside the acquired structure.

4.4.15 Only one fire at a time shall be permitted within an acquired structure.

4.4.16 Fires shall not be located in any designated exit paths.

4.4.19.3 The decision to ignite the training fire shall be made by the instructor-in-charge in coordination with the safety officer.

4.4.19.4 The fire shall be ignited by the ignition officer in the presence of and under the direct supervision of the safety officer.”

of the NFPA 1403 (Ed. 2007) Standard.

9. Ensure all persons in the training area adhere to this Standard.

I understand that the above listed items outline my responsibilities and have provided for the completion of these responsibilities according to the Standard.

Date _____ Instructor-in-Charge _____

RESPONSIBILITIES OF THE SAFETY OFFICER

(To be completed prior to start of Live Fire Training Evolution)

1. Prevent unsafe acts.
2. Eliminate unsafe conditions.
3. Intervene and terminate unsafe acts.
4. Inspect building integrity prior to and after each Live Fire Training Evolution.
5. Supervise any additional safety personnel, as needed.
6. Coordinate lighting of fires with Instructor-in-Charge.
7. Ensure compliance of participant's personal equipment with applicable standards (Fire/EMS General Order 5-3):
 - Protective clothing.
 - Self Contained Breathing Apparatus. (S.C.B.A.)
 - Personal alarm devices, where used.
8. ***Ensure no more than nine people are in structure during a Live Fire Training Evolution.***
9. ***Sequential burning plan in accordance with Sections:***

4.4.13 A search of the acquired structure shall be conducted to ensure that no unauthorized persons, animals, or objects are in the acquired structure immediately prior to ignition.

4.4.14 No person(s) shall play the role of a victim inside the acquired structure.

4.4.15 Only one fire at a time shall be permitted within an acquired structure.

4.4.16 Fires shall not be located in any designated exit paths.

4.4.19.3 The decision to ignite the training fire shall be made by the instructor-in-charge in coordination with the safety officer.

4.4.19.4 The fire shall be ignited by the ignition officer in the presence of and under the direct supervision of the safety officer.”

of the NFPA 1403 (Ed. 2007) Standard.

RESPONSIBILITIES OF THE SAFETY OFFICER (continued)

(To be completed prior to start of Live Fire Training Evolution)

- 10. Ensure that all participants are accounted for, both before and after each Live Fire Training Evolution.
- 11. In the event of an injury or illness, the Safety Officer shall complete a Fire/EMS Training Academy Post Injury/Illness Safety Report.

I understand that the above listed items outline my responsibilities and have provided for the completion of these responsibilities according to the Standard.

Date _____

Safety Officer _____

RESPONSIBILITIES OF THE LEAD INSTRUCTORS

(To be completed prior to start of Live Fire Training Evolution)

- 1. Monitor and supervise assigned Students (no more than five per Lead Instructor).
- 2. Inspect Student's protective clothing and equipment.
- 3. Account for assigned Students, both before and after each Live Fire Training Evolution.
- 4. Be alert for any unsafe and hazardous conditions.
- 5. Inspect building integrity prior to and after each Live Fire Training Evolution.

I understand that the above listed items outline my responsibilities and have provided for the completion of these responsibilities according to the Standard.

Date _____ Lead Instructor _____

Date _____ Lead Instructor _____

Date _____ Lead Instructor _____

Date _____ Lead Instructor _____

Date _____ Lead Instructor _____

Date _____ Lead Instructor _____

RESPONSIBILITIES OF THE INSTRUCTORS

(To be completed prior to start of Live Fire Training Evolution)

- 1. Monitor and supervise assigned Students (no more than five per Instructor).
- 2. Inspect Student's protective clothing and equipment.
- 3. Account for assigned Students, both before and after each Live Fire Training Evolution.
- 4. Be alert for any unsafe and hazardous conditions.
- 5. Inspect building integrity prior to and after each Live Fire Training Evolution.

I understand that the above listed items outline my responsibilities and have provided for the completion of these responsibilities according to the Standard.

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

Date _____ Instructor _____

IMMEDIATE PRE-BURN PROCEDURES
(Responsibility of the Instructor-in-Charge)

1. Ventilation openings of adequate size precut for each separate roof area.
2. Fire “sets” prepared:
 - Class A materials only.
 - No flammable or combustible liquids.
 - No contaminated materials.
 - Sequential burn plan established.***
3. All participants briefed:
 - Building layout sheets reviewed.
 - Building interior walked through.***
 - Crew and instructor assignments.
 - Safety rules.
 - Building evacuation procedures.
 - Means of egress marked.
 - Evacuation signal. (demonstrate)***
4. All hose lines checked:
 - Sufficient size for area of fire involvement.
 - Charged and test flowed.
 - Supervised by qualified instructors.
 - Adequate number of personnel.
5. Necessary tools and equipment positioned.
6. Participants checked:
 - Approved full protective clothing.
 - Self-Contained Breathing Apparatus. (SCBA)
 - Adequate SCBA air volume.
 - All equipment properly donned.
7. Location of command post established.
8. Positioning of all apparatus.
9. Positioning of all hoses, including backup lines. (**Any exposure concerns.**)
10. Location of emergency escape routes.
11. BLS unit on location.
12. Apparatus pumps obtained that meet or exceed the required fire flow for the building and exposures.
13. Apparatus staging.
14. Police vehicles. (If applicable)
15. Press vehicles. (If applicable)
16. Communication channels established and equipment obtained Notification to PSC Supervisor.

I certify that I have provided for the above listed items prior to burning.

Date _____

Instructor-in-Charge _____

POST BURN PROCEDURES
(Responsibility of Instructor-in-Charge)

1. All personnel accounted for.
2. Remaining fires overhauled, as needed.
3. Building inspected for stability and hazards, if more training is to follow.
4. Fire line tape applied at front, sides, and rear of structure remains, as applicable, to secure the area.
5. Training critique conducted.
6. Documentation of unusual conditions or events.
7. Documentation of injuries incurred and treatment rendered.
8. Post Acquired Structure Package forwarded to the Director of Fire/EMS Training Academy within one (1) week of completed Live Fire Training Evolution.

Date _____ Instructor-in-Charge _____

NFPA 1403
Chapter 4
Acquired Structures

4.1 Student Prerequisites.

4.1.1* Prior to being permitted to participate in live fire training evolutions, the student shall have received training to meet the job performance requirements for Fire Fighter I in NFPA 1001, *Standard for Fire Fighter Professional Qualifications*, related to the following subjects:

- (1) Safety
- (2) Fire behavior
- (3) Portable extinguishers
- (4) Personal protective equipment
- (5) Ladders
- (6) Fire hose, appliances, and streams
- (7) Overhaul
- (8) Water supply
- (9) Ventilation
- (10) Forcible entry

4.1.2* Students participating in a live fire training evolution who have received the required minimum training from other than the authority having jurisdiction (AHJ) shall not be permitted to participate in any live fire training evolution without first presenting prior written evidence of having successfully completed the prescribed minimum training to the levels specified in 4.1.1.

4.2 Structures and Facilities.

4.2.1* Any acquired structure that is considered for a structural fire training exercise shall be prepared for the live fire training evolution.

4.2.2* Preparation shall include application for and receipt of required permits and permissions.

4.2.3* Ownership of the acquired structure shall be determined prior to its acceptance by the AHJ.

4.2.4 Evidence of clear title shall be required for all structures acquired for live fire training evolutions.

4.2.5* Written permission shall be secured from the owner of the structure in order for the fire department to conduct live fire training evolutions within the acquired structure.

4.2.6 A clear description of the anticipated condition of the acquired structure at the completion of the evolution(s) and the method of returning the property to the owner shall be put in writing and shall be acknowledged by the owner of the structure.

4.2.7* Proof of insurance cancellation or a signed statement of nonexistence of insurance shall be provided by the owner of the structure prior to acceptance for use of the acquired structure by the AHJ.

4.2.8 The permits specified in this chapter shall be provided to outside, contract, or other separate training agencies by the AHJ upon the request of those agencies.

4.2.9* All hazardous storage conditions shall be removed from the structure or neutralized in such a manner as to not present a safety problem during use of the structure for live fire training evolutions.

4.2.9.1 Closed containers and highly combustible materials shall be removed from the structure.

4.2.9.2 Oil tanks and similar closed vessels that cannot be removed shall be vented to prevent an explosion or overpressure rupture.

4.2.9.3 Any hazardous or combustible atmosphere within the tank or vessel shall be rendered inert.

4.2.10 All hazardous structural conditions shall be removed or repaired so as to not present a safety problem during use of the structure for live fire training evolutions.

4.2.10.1 Floor openings shall be covered.

4.2.10.2 Missing stair treads and rails shall be repaired or replaced.

4.2.10.3 Dangerous portions of any chimney shall be removed.

4.2.10.4 Holes in walls and ceilings shall be patched.

4.2.10.5* Low-density combustible fiberboard and other unconventional combustible interior finishes shall be removed.

4.2.10.6* Extraordinary weight above the training area shall be removed.

4.2.11 All hazardous environmental conditions shall be removed before live fire training evolutions are conducted in the structure.

4.2.11.1 Debris creating or contributing to unsafe conditions shall be removed and ventilation openings that are normally closed but can be opened in the event of an emergency shall be permitted to be utilized.

4.2.11.3 Utilities shall be disconnected.

4.2.11.4 Any toxic weeds, insect hives, or vermin that could present a potential hazard shall be removed.

4.2.11.5 All forms of asbestos deemed hazardous to personnel shall be removed by an approved asbestos removal contractor.

4.2.12 Exits.

4.2.12.1 Exits from the acquired structure shall be identified and evaluated prior to each training burn.

4.2.12.2 Participants of the live fire training shall be made aware of exits from the acquired structure prior to each training burn.

4.2.13 Buildings that cannot be made safe as required by this chapter shall not be utilized for interior live fire training evolutions.

4.2.14 Adjacent buildings or property that might become involved shall be protected or removed.

4.2.15 Utility services adjacent to the live burn site shall be removed or protected.

4.2.16 Trees, brush, and surrounding vegetation that create a hazard to participants shall be removed.

4.2.17 Combustible materials, other than those intended for the live fire training evolution, shall be removed or stored in a protected area to preclude accidental ignition.

4.2.18 Property adjacent to the training site that could be affected by the smoke from the live fire training evolution, such as railroads, airports or heliports, and nursing homes, hospitals, or other similar facilities, shall be identified.

4.2.19 The persons in charge of the adjacent properties identified in 4.2.18 shall be informed of the date and time of the evolution.

4.2.20* Streets or highways in the vicinity of the training site shall be surveyed for potential effects from live fire training evolutions, and safeguards shall be taken to eliminate possible hazards to motorists.

4.2.21 Fire lines shall be established to keep pedestrian traffic in the vicinity of the training site clear of the operations area of the live burn.

4.2.22* Awareness of weather conditions, wind velocity, and wind direction shall be maintained, including a final check for possible changes in weather conditions immediately before actual ignition.

4.2.23 The instructor-in-charge shall determine the rate and duration of waterflow necessary for each individual live fire training evolution, including the water necessary for control and extinguishment of the training fire, the supply necessary for backup lines to protect personnel, and any water needed to protect exposed property.

4.2.23.1 The minimum water supply and delivery for live fire training evolutions shall meet the criteria identified in NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*.

4.2.23.2 A minimum reserve of additional water in the amount of 50 percent of the fire flow demand determined in 4.2.23.1 shall be available to handle exposure protection or unforeseen situations.

4.2.23.3* Separate sources shall be utilized for the supply of attack lines and backup lines in order to preclude the loss of both water supply sources at the same time.

4.2.24 Areas for the staging, operating, and parking of fire apparatus that are used in the live fire training evolution shall be designated.

4.2.24.1 An area for parking fire apparatus and vehicles that are not a part of the evolution shall be designated so as not to interfere with fireground operations.

4.2.24.2 If any of the apparatus described in 4.2.24.1 is in service to respond to an emergency, it shall be located in an area to facilitate a prompt response.

4.2.24.3 Where required or necessary, parking areas for police vehicles or for the press shall be designated.

4.2.24.4 A parking area for an ambulance or an emergency medical services vehicle shall be designated and located where it will facilitate a prompt response in the event of personal injury to participants in the evolution.

4.2.24.5 Ingress and egress routes shall be designated, identified, and monitored during the training evolutions to ensure their availability in the event of an emergency.

4.2.25 Prior to the conduct of actual live fire training evolutions, a preburn briefing session shall be conducted for all participants, in which all facets of each evolution to be conducted are discussed and assignments for all crews participating in the training session are given.

4.2.25.1 The location of simulated victims shall not be required to be disclosed, provided that the possibility of victims is discussed during the preburn briefing.

4.2.25.2 A preburn plan shall be prepared and shall be utilized during the preburn briefing sessions.

4.2.25.3 All features of the training areas and structure shall be indicated on the preburn plan.

4.2.25.4 Prior to the conduct of any live fire training, all participants shall be required to conduct a walk-through of the acquired structure in order to have a knowledge of and familiarity with the layout of the acquired structure and to facilitate any necessary evacuation of the acquired structure.

4.2.26 All spectators shall be restricted to an area outside the operations area perimeter established by the safety officer.

4.2.26.1 Control measures such as ropes, signs, and fire line markings shall be posted to indicate the perimeter of the operations area.

4.2.26.2 Visitors who are allowed within the operations area perimeter shall be escorted at all times.

4.2.26.3 Visitors who are allowed within the operations area perimeter shall be equipped with and shall wear complete protective clothing in accordance with manufacturer's instructions and in accordance with 6.4.17.1 through 6.4.17.7.

4.2.27 All possible sources of ignition, other than those that are under the direct supervision of the person responsible for the start of the training fire, shall be removed from the operations area.

4.3 Fuel Materials.

4.3.1 The fuels that are utilized in live fire training evolutions shall have known burning characteristics that are as controllable as possible.

4.3.2 Unidentified materials, such as debris found in or around the structure that could burn in unanticipated ways, react violently, or create environmental or health hazards, shall not be used.

4.3.3* Pressure-treated wood, rubber, and plastic, and straw or hay treated with pesticides or harmful chemicals shall not be used.

4.3.4* Fuel materials shall be used only in the amounts necessary to create the desired fire size.

4.3.5 The fuel load shall be limited to avoid conditions that could cause an uncontrolled flashover or backdraft.

4.3.6 Flammable or combustible liquids, as defined in NFPA 30, *Flammable and Combustible Liquids Code*, shall not be used in live fire training evolutions in acquired structures.

4.3.7* The instructor-in-charge shall assess the selected fire room environment for factors that can affect the growth, development, and spread of fire.

4.3.8* The instructor-in-charge shall document fuel loading, including all of the following:

- (1) Furnishings
- (2) Wall and floor coverings and ceiling materials
- (3) Type of construction of the structure, including type of roof and combustible void spaces
- (4) Dimensions of the room

4.3.9* The training exercise shall be stopped immediately when the instructor-in-charge determines through ongoing assessment that the combustible nature of the environment represents a potential hazard.

4.3.10 An exercise stopped as a result of an assessed hazard according to 4.3.9 shall continue only when actions have been taken to reduce the hazard.

4.4 Safety.

4.4.1 A safety officer shall be appointed for all live fire training evolutions.

4.4.2* The safety officer shall have the authority, regardless of rank, to intervene and control any aspect of the operations when, in his or her judgment, a potential or actual danger, accident, or unsafe condition exists.

4.4.3 The responsibilities of the safety officer shall include, but shall not be limited to, the following:

- (1) Prevention of unsafe acts
- (2) Elimination of unsafe conditions

4.4.4 The safety officer shall provide for the safety of all persons on the scene including students, instructors, visitors, and spectators.

4.4.5 The safety officer shall not be assigned other duties that interfere with safety responsibilities.

4.4.6* The instructor-in-charge of the live fire training evolutions shall determine, prior to each specific evolution, the number of training attack lines and backup lines that are necessary.

4.4.6.1 Each hose line shall be capable of delivering a minimum of 360 L/min (95 gpm).

4.4.6.2 Backup lines shall be provided to ensure protection for personnel on training attack lines.

4.4.7 The instructor-in-charge shall assign the following personnel:

- (1) One instructor to each functional crew, which shall not exceed five students
- (2) One instructor to each backup line
- (3) Additional personnel to backup lines to provide mobility
- (4) One additional instructor for each additional functional assignment

4.4.8* Additional safety personnel, as deemed necessary by the safety officer, shall be located strategically within the structure to react to any unplanned or threatening situation or condition.

4.4.9 A method of fireground communications shall be established to enable coordination among the incident commander, the interior and exterior sectors, the safety officer, and external requests for assistance.

4.4.10* A building evacuation plan shall be established, including an evacuation signal to be demonstrated to all participants in an interior live fire training evolution.

4.4.11 Emergency medical services shall be available on site to handle injuries.

4.4.12 Written reports shall be filled out and submitted on all injuries and on all medical aid rendered.

4.4.13 A search of the acquired structure shall be conducted to ensure that no unauthorized persons, animals, or objects are in the acquired structure immediately prior to ignition.

4.4.14 No person(s) shall play the role of a victim inside the acquired structure.

4.4.15 Only one fire at a time shall be permitted within an acquired structure.

4.4.16 Fires shall not be located in any designated exit paths.

4.4.17 The training session shall be curtailed, postponed, or canceled, as necessary, to reduce the risk of injury or illness caused by extreme weather conditions.

4.4.18 Each participant shall be equipped with full protective clothing and self-contained breathing apparatus (SCBA).

4.4.18.1 All participants shall be inspected by the safety officer prior to entry into a live fire training evolution to ensure that the protective clothing and SCBA are being worn correctly and are in serviceable condition.

4.4.18.2 Protective coats, trousers, hoods, footwear, helmets, and gloves shall have been manufactured to meet the requirements of NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*.

4.4.18.3 SCBA shall have been manufactured to meet the requirements of NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services*.

4.4.18.4* Where station or work uniforms are worn by any participant, the station or work uniform shall have been manufactured to meet the requirements of NFPA 1975, *Standard on Station/Work Uniforms for Fire and Emergency Services*.

4.4.18.5 Personal alarm devices shall have been manufactured to meet the requirements of NFPA 1982, *Standard on Personal Alert Safety Systems (PASS)*.

4.4.18.6 All students, instructors, safety personnel, and other personnel shall wear according to manufacturer's instructions all protective clothing and equipment specified in this chapter whenever they are involved in any evolution or fire suppression operation during the live fire training evolution.

4.4.18.7* All students, instructors, safety personnel, and other personnel participating in any evolution or operation of fire suppression during the live fire training evolution shall breathe from an SCBA air supply whenever they operate under one or more of the following conditions:

- (1) In an atmosphere that is oxygen deficient or contaminated by products of combustion, or both
- (2) In an atmosphere that is suspected of being oxygen deficient or contaminated by products of combustion, or both
- (3) In any atmosphere that can become oxygen deficient, contaminated, or both
- (4) Below ground level

4.4.19 One person who is not a student shall be designated as the "ignition officer" to control the materials being burned.

4.4.19.1 The ignition officer shall wear full protective clothing, including SCBA, as required in 6.4.17.1 through 6.4.17.7, when performing this control function.

4.4.19.2 A charged hose line shall accompany the ignition officer when he or she is igniting any fire.

4.4.19.3 The decision to ignite the training fire shall be made by the instructor-in-charge in coordination with the safety officer.

4.4.19.4 The fire shall be ignited by the ignition officer in the presence of and under the direct supervision of the safety officer.

4.5 Instructors.

4.5.1 All instructors shall be qualified to deliver firefighter training by the AHJ.

4.5.2* The participating student-to-instructor ratio shall not be greater than 5 to 1.

4.5.3 Additional instructors shall be designated when factors such as extreme temperatures or large groups are present, and classes of long duration are planned.

4.5.4 The instructor-in-charge shall be responsible for full compliance with this standard.

4.5.5 Prior to the ignition of any fire, instructors shall ensure that all protective clothing and equipment specified in this chapter are being worn according to manufacturer's instructions.

4.5.6 Instructors shall take a head count when entering and exiting the acquired structure during an actual attack evolution conducted in accordance with this standard.

4.5.7 Instructors shall monitor and supervise all assigned students during the live fire training evolution.

4.5.8 The instructor-in-charge shall provide for rest and rehabilitation of members operating at the scene, including any necessary medical evaluation and treatment, food and fluid replenishment, and relief from climatic conditions. (*See Annex D.*)

4.5.9 It shall be the responsibility of the instructor-in-charge to coordinate overall acquired structure fireground activities to ensure correct levels of safety.

