BEDFORD COUNTY DEPARTMENT OF FIRE & RESCUE Standard Operating Guideline Discipline: Operations Reference Number: F/R-18 APPROVED BY: Chief Janet Blankenship SUBJECT: Live Fire Training

Purpose:

This policy has been developed to ensure that live fire training evolutions are conducted in a safe and proper manner. Live fire training is a fundamental element of firefighter training in both introductory and incumbent formats.

Scope:

To meet the training needs of the Bedford County Department of Fire and Rescue (BCoFR), and in compliance with NFPA 1402, live fire training evolutions are conducted at the Orange Street burn building, as well as in acquired structures. These policies shall apply to all live structural fire training evolutions. However, the permit process and other requirements as specified for acquired structures do not apply when using the Orange Street burn building. Under no circumstances shall live fire training evolutions be conducted without prior knowledge and approval by a member of BCoFR command staff or the Training Captain.

Bedford County Fire & Rescue (BCoFR) and associated volunteer fire departments shall conduct fire training in accordance with National Fire Protection Association (NFPA) 1403, Standard on Live Fire Training Evolutions in Structures and the BCoFR training policies.

Procedure/Requirements:

Reserving Space and Access Limitations

BCoFR is responsible for scheduling all training activities at the burn building. Individuals and organizations wanting to utilize the burn building shall reserve the site through the Training Captain or department designees authorized to reserve space. Individuals and organizations utilizing the training center are not permitted to enter the property utilized for Police training without permission from the Bedford Police Department.

Site Overhaul, Cleaning, and Inspection

Upon completion of the training activities, all buildings and exterior facilities will be thoroughly inspected for any trash and physical damage. All trash shall be removed from the facility. At the conclusion of the exercise, the building and grounds will be left in a safe and clean condition.

Instructors that do not leave the building and grounds in a safe and clean condition may be prohibited from future use of the facility.

Damage to Facility

Any property damage above and beyond normal use will need to be reported to the Training Captain as soon as possible and may be billed to the agency or responsible party utilizing the facility.

Orange Street Training Center

The delivery of safe and effective structural firefighting training is the primary goal associated with the burn building located at the training center. The preparation, delivery and follow-up of all live fire training evolutions conducted at this facility shall be conducted in accordance with NFPA-1403 Standard on Live Fire Training Evolutions.

Responsibilities

Agencies conducting live fire training in conjunction with the Virginia Department of Fire Programs are responsible for ensuring that training evolutions conducted in the Burn Building are conducted in accordance with established agency training policies and standards.

The designated lead instructor is responsible for ensuring that all policies and standards are followed before, during, and following live fire training exercises.

The lead instructor shall be responsible for completing the initial Incident Action Plan (IAP), NFPA 1403 checklist (figure C.1 in the current NFPA 1403 edition) and forwarding to the Training Captain for review and approval prior to exercise.

All Instructors shall conduct themselves in a manner that is consistent with the instructional practices outlined in NFPA 1041-Standard for Fire Service Instructor Professional Qualifications and the Virginia Department of Fire Programs Instructor Manual.

Students using this facility must always follow instructions given by supervisors and instructors and must abide by the policies outlined within this document to ensure the safe and effective use of the facility.

BCoFR and the Bedford Fire Department will be jointly responsible for scheduling the regular inspections of the burn building and calibration of the temperature monitoring system.

General Live Fire Training Requirements

Pursuant to the requirements established by the Virginia Fire Services Board, the Burn Building has been designed for the following criteria:

- Maximum number of live fire training days per year = 120
- Maximum number of live fire training evolutions per day = 10
- Maximum duration of each live fire training evolution = 20 minutes
- Maximum sustained temperature during live fire training = 900 degrees F
- Maximum temperature spike during live fire training = 1200 degrees F
- Only "Class-A" fuel materials shall be used for live fire training. Oriented Strand Board (OSB) shall not be used.
- Live fire training shall be in accordance with NFPA 1403 and the written guidelines of the Virginia Department of Fire Programs (VDFP).
- Live fire training shall occur in burn rooms only.
- No training that includes tear gas, explosives, firearms, or forced entry shall occur within or near the building.
- No vehicles shall be allowed within 15 feet of the building during live fire training.
- The fuel load for each fire evolution shall be evaluated in accordance with the intended exercise objectives. No more than 3 pallets and 1 to 1 ½ bales of straw shall be used.
- All communication devices (mobile and portable radios) will be tested prior to every evolution.
- During extreme weather conditions, the VDFP extreme weather policy for outdoor training shall be used as a guide for determining the level and length of training.

All live fire training conducted in the Burn Building shall be conducted in accordance with the following standards:

- NFPA 1001 Standard for Firefighter Professional Qualifications
- NFPA 1041 Standard for Fire Service Instructor Professional Qualifications
- NFPA 1403 Standard on Live Fire Training Evolutions (current edition)
- NFPA 1500 Standard on Fire Department Occupational Safety and Health Programs
- NFPA 1584 Standard on the Rehabilitation Process
- OSHA Respiratory Protection Standard (CFR 1910.134)
- VDFP Policy for Conducting Live Fire Training Evolutions
- VDFP Policies and Procedures for Outdoor Training during extreme weather

Temperature Monitoring System

All live fire training conducted in the burn building shall be conducted with the use of a temperature monitoring system. Unless otherwise directed, all training fires shall be monitored through the utilization of the system installed in the Burn Building. In the event that this system

is out of service or otherwise unavailable, temperature monitoring shall be conducted through the use of a thermal imaging camera (TIC). If necessary, it is the responsibility of the lead instructor to provide a TIC. Results shall be documented by the proctor using the Live Burn Data form (attached).

BCoFR will maintain possession of the temperature monitoring measurement instrument.

At no time will an instructor conduct a live fire training exercise without utilizing a temperature monitoring device. Instructors who violate this requirement will be prohibited from future use of the facility.

Live burn accountability

As a requirement of the Virginia Department of Fire Programs, all students/employees that participate in live fire training shall complete a Virginia Department of Fire Programs Live Burn Accountability Form (attached). This includes the medical evaluation and personal protective equipment inspection.

Before the day's training begins, each student and instructor must fill out a "Live Burn Accountability Form" and return it to the lead instructor. In the event that a student or instructor is injured or becomes ill, this form will contain the necessary emergency information for the individual. This form will assist the EMS providers and hospital with updated information, emergency contact information, any present conditions, any medications, etc.

Designated Live Fire Training Roles

Live fire training shall be led by qualified instructors who are trained in the application of NFPA 1403 Standard on Live Fire Training Evolutions.

The following roles shall be filled for any live fire training evolution:

- Incident Commander (Instructor-in-Charge)
- Burn Proctor
- Instructor(s)
- Safety Officer(s)

Each position is defined in Section 3.2, 4.5 and 4.7 of NFPA 1403. Personnel may be rotated through these different roles if they meet the given requirements.

Incident Commander (Instructor-in-Charge)

- An individual qualified as an instructor and designated by the authority having jurisdiction to oversee the live fire training evolution and has met the requirements of an NFPA 1041 Instructor Level II.
- Must have the training and experience to supervise instructors, students, and other personnel during live fire training evolutions.

- Shall be responsible for full compliance with NFPA 1403. For further information on the minimum duties of the Instructor-in-Charge refer to Section 4.7 of NFPA 1403.
- 1403 Live Fire Instructor
- VDFP-FST Firefighter I&II Train the Trainer NFPA-1001-08 (for VDFP sponsored training)

Burn Proctor

Prior to each live fire training exercise conducted in the burn building, BCoFR will assign a proctor for each burn. Live fire training conducted as part of an approved Virginia Department of Fire Programs training curriculum shall have a 1403 Compliance Officer assigned/approved by the agency conducting training. During all live fire training the proctor and/or 1403 Compliance Officer shall assume responsibility for the safe use of the Burn Building in accordance with established policies. The Proctor will document the temperature on each burn utilizing the Live Burn Data form. This individual has full authority to stop the operation when it is deemed unsafe or not in accordance with the established policies.

Live Fire Safety Officer

- An individual appointed by the authority having jurisdiction as qualified to maintain a safe working environment at all live fire training evolutions.
- Shall provide for the safety of all persons on the training ground.
- Shall not be assigned other duties that interfere with safety responsibilities.
- Shall be knowledgeable in the operation and location of safety features available for the live fire training structure or prop, such as emergency shutoff switches, gas shutoff valves, evacuation alarms, and temperature monitoring systems, if equipped.
- There shall be one Safety Officer assigned to the interior and one to the exterior.

Eligibility requirements to serve as the safety officer of any live fire training in Bedford County are as follows:

- Instructor I
- 1403 Live Fire Awareness
- Incident Safety Officer certification

Instructor

An individual qualified by the authority having jurisdiction to deliver firefighter training, who has the training and experience to supervise students during live fire training evolutions, and who has met the requirements of an Instructor I in accordance with NFPA 1041.

Fire Control Team

- Shall consist minimally of two people.
- One of the two (who is not a student or the safety officer) shall be designated as the ignition officer
- The ignition officer will ignite and maintain the materials being burned.
- The member of the fire control team who is not the ignition officer shall be in an area to observe ignition, recognize, report, and respond to any adverse conditions.

Acquired Structures

It is the department's policy to accept loaned structures from the public or other agencies for use in training. Live fire training, destructive, and non-destructive training exercises can be conducted in acquired structures if specific use conditions are met. Use of these structures require processing prior to conducting training. The procedure for processing potential structures are as follows.

The party offering the structure shall be directed to contact the BCoFR's Training Captain. The Training Captain will provide the individual with a copy of the "Acquired Property Owner Package." (attached)

When fire stations are contacted by property owners, the fire station shall obtain the property address of the home being loaned, name, email address, and phone number. This information shall be sent to the Training Captain for follow up. Stations shall not handle the process of loaned properties on their own without the approval from the Training Captain.

A site visit by the Training Captain and/or respective department designee shall be scheduled with the property owner to inspect the home for safety and determine the training possibilities.

When the required documents are received by the Training Captain they will be reviewed for completeness.

Final approval and signature by the Deputy Chief of Operations is needed for properties being used for live fire training.

Advance Preparation for Acquired Structures

Advance preparations shall be conducted by the Training Captain or Instructor-in-Charge.

The designated Instructor-in-Charge shall be responsible for organizing and conducting the training evolutions in acquired structures. They shall be responsible for ensuring the following are completed prior to any training commencing:

• The logistics for the exercise shall be determined.

- IAP, NFPA 1403 checklists (figures B.1 and C.1) and acquired structure documentation shall be submitted to the Training Captain for review and approval prior to exercise.
- Email notifications shall be made of upcoming training at an acquired structure at a minimum of five days prior to the training event. Seven days advanced notification is preferred.

Email distribution list: Fire Chief, Deputy Chief of Operations, Deputy Chief of Administration, Training Captain, Administrative Manager, Bedford County Sherriff's Office, Bedford Police Department (if applicable), and the Communications Center E911 Director.

Residents in the surrounding area of the training address shall be notified prior to the burn.

Additional Site Preparation Requirements for Live Fire Training Evolutions in Acquired Structures

- All doors where hose lines will travel through must be altered to allow for movement of hose lines while the door is closed.
- All locking mechanisms on doors shall be removed.
- A minimum of four hand lines shall always be in service.
- 1. Attack line/Instructor-1403 line
- 2. Backup line/Instructor-1403 line
- 3. RIT line
- 4. Exposure line
- All hand lines shall be charged and checked for adequate pressure prior to ignition.
- A minimum of two engines will be used for each evolution. For non-hydrant settings, two tankers (minimum of 2500 gallons each) are required in addition to two engines.
- Out of the four required hand lines, only two should be connected to any one engine. Each hand line should have its own discharge. If additional lines are necessary, a third line can be placed in service from any one engine.

Conducting the Exercise

The lead instructor shall ensure the following are addressed and resolved the day of the live fire training exercise:

• The IAP and exercise checklists shall be completed, and all items shall comply with this policy and NFPA 1403.

- The incident command system shall be activated.
- The personnel accountability system shall be utilized indicating the assignments of every unit participating in training exercises.
- All personnel will be briefed on the objectives and procedures for the training exercise.
- All exercise participants shall conduct a walk-through of the structure prior to commencing the burn. Emergency exits shall be identified and emphasized during this walk-through.
- All communication devices (mobile and portable radios) will be tested prior to every evolution
- The evacuation signal shall be identified.
- A minimum of two signs shall be utilized to identify the training exercise for both sides of the road or travel lanes.
- A rehabilitation area with fluid replenishment shall be established and utilized.
- A dedicated EMS unit shall be on-site with a crew identified prior to ignition of each evolution.

An after-action report shall be completed within 30 days after the training by the lead instructor and sent to the Training Captain for distribution to Senior Staff. All completed documents including objectives, permits, releases, checklists, and post-burn reports shall be scanned and maintained.

Live Fire Fuel Materials and Loading for Acquired Structures

All subsections of NFPA 1403, Section 4.13 Fuel Materials shall be followed.

NFPA 1403, Section 4.13.6 states "Fuel Materials shall be used only in amounts necessary to create desired fire size."

NFPA 1403, Section 4.13.7 states "the fuel load shall be limited to avoid condition that could cause an uncontrolled flash over or backdraft. If a controlled flashover is designed to occur for training purposes, additional safety measures for providing a safe observation space for instructors and students shall be documented and followed."

NFPA 1403, Section 4.13.2 pressure-treated wood, rubber, plastic, polyurethane foam, tar paper, upholstered furniture, carpeting, and chemically treated or pesticide-treated straw or hay **shall not be used** as part of the fuel load.

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.

Flammable liquids shall not be permitted inside the live fire training structure and shall not be used as fuel. The only exception shall be when conducting live fire training evolutions with the specific purpose of training individuals for fire cause and origin investigation.

Acceptable fuel materials for an acquired structure include wooden pallets, excelsior, untreated straw and hay, and other wood-based products.

Oriented Strand Board (OSB) with Poly-methylene diphenyl diisocyanate (PDMI) shall not be used.

It is important to understand when discussing compartment fires that fire growth is a direct function of fuel properties, fuel quantity, ventilation (natural or mechanical), compartment geometry (volume and ceiling height), location of fire and ambient conditions (wind, temperature, and relative humidity).

The fuel load for each fire evolution shall be evaluated in accordance with the intended exercise objectives. No more than 3 pallets and 1 to 1 ½ bales of straw shall be used.

The size of the room utilized for the fire set should be considered when calculating fuel load. Smaller rooms require a smaller fuel load for any desired fire size when compared to a larger room.

Example: When setting up to burn for a fire behavior evolution a room that measures 10' x 10' x 9' (total volume = 900 cubic feet) will require less fuel than a room measuring 15' x 20' x 12' (total volume = 3,600 cubic feet) to reach a given objective. The difference in size of these two rooms (2,000 cubic feet) directly effects the amount of oxygen available to the fire and the number of products of combustion it will take to fill the room. Also, the height of the room has a direct effect on how the fire will grow and progress. The lower the ceiling, the faster the fire will progress to the fully involved stage in the compartment.

Setting a pre-defined standard limit to the number of pallets utilized for fuel as a means of mitigating risk is not an appropriate practice. Fuel materials come in many different shapes, sizes, and composed of different types of wood. Instead, the Instructor-in-Charge and the designated Safety Officer shall determine the correct amount of fuel material to be used in each fire set.

When utilizing an acquired structure, only one fire shall be burning at any time.

| BCoFR Live Fire Incident Action Plan | | | | | | |
|--------------------------------------|---------|-----------|------------------------|---------|--------|---------------------|
| 1. TRAINING EVENT: | 2. PROC | CTOR: | 3. D | ATE/TIN | ME: | |
| 4. TRAINING LOCATION: | | | 5. INCIDENT COMMANDER: | | | |
| 6. TRAINING OBJECTIVES: | | | l | | | |
| 7. LOGISTICAL REQUIREMENT | ΓS: | | 8. R | ADIO C | HANNE | LS: |
| UNITS/GROUPS | INS | STRUCTOR | | LOCAT | ION | REQUIRED PPE |
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| 9. WALK THROUGH COMPELT | ΓED? | TIN | ΛE: | | | |
| 10. SAFETY BRIEFING COMPLE | ETED? | TIN | ΛE: | | | |
| INTERIOR SAFTE | | | | | | |
| EXTERIOR SAFET FIRE CONTROL TEAM | | | | | | |
| FIRE CONTROL TEAM | , | | | | | |
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| 11. WEATHER FORECAST | | | | | | |
| TEMP: HILOW | ⊦ | IUMIDITY: | | _% PR | ECIP: | % |
| 12. GENERAL SAFETY MESSA | GE: | | | | | |
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| 13. MEDICAL PLAN | | | | | | |
| REHAB AREA | E | EMS OIC | | ST | AND-BY | //TRANSPORT UNIT(s) |
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| 14. PRE-DRILL VITALS REQUI | RED? | POST [| DRILL | _ VITAL | S REQL | JIRED? |
| 15. PREPARED BY: | | 16. APPRO | OVED | BY: | DATE: | TIME: |

Virginia Department of Fire Programs

| Location: | | | | Date: | | School No.: |
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| | | Live | Burn A | Account | | |
| Individual Na | | | | | Departmen | nt: |
| Emergency Co | ntact: | | | | Allergies: | |
| Known Medic | al Problen | ns: | | | | |
| | Note: Ren | nember to keep | crews well hy | drated during | time in staging | or rehabilitation |
| VITAL SIGNS | B/P | RESP. | PULSE | TEMP. | SKIN | TAKEN BY: |
| Base Line | | | | | | |
| Post Entry #1 | | | | | | |
| Post Entry #2 | | | | | | |
| Post Entry #3 | | | | | | |
| Post Entry #4 | | | | | | |
| Post Entry #5 | | | | | | |
| Post Entry #6 | | | | | | |
| Post Entry #7 | | | | | | |
| PERSONNEL | /TURNOL | UT GEAR I | NSPECTIO | N: | | |
| Coat: | | Pants: | | Helmet: | | Boots: |
| Gloves: | | Hood: | | SCBA: _ | | Pass: |
| Accountability: _ | | Problems wi | th Personnel/C | Gear: | | |
| TRAINING LI These NFPA 1001 | | | | | ing training Jo | b Performance Requirements (JPR). |
| Safety | | | Fire B | ehavior | | Portable Extinguishers |
| | Protective Ec | quipment | Ladde | rs | | Fire Hose, Appliances, and |
| Overhaul | | | | Ventilation | | |
| I | | | certify the | at I have rec | eived the ab | ove training prior to entering |
| the Live Fire Tr | | ng offered h | ere. I also c | ertify the ab | | |
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| Signature of | | | | | | |
| Dept. Official | | | | Title: | | Date:// |
| Signature of L | ead Instru | ictor: | | | | Date:// |
| Signature of S | ofots Offic | 2011 | | | | Date: / / |

Live Fire Training Recommended Medical Parameters

The information listed below is intended for use as a guideline for the evaluation of firefighters during Baseline and Post Entry physical evaluations. 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 Lead Instructor shall ensure that medical advice is followed and not override that advice.

- Blood Pressure diastolic greater than 105 mm Hg or a resting blood pressure greater than 160/100 mm Hg.
- Pulse greater than 70 percent of the maximum heart rate (220 age)
- Respiratory Rate greater than 24 per minute
- Temperature greater than 99.5 deg. F (oral) or greater than 100.5 deg. F (core) or less than 98.0 deg. F (core).
- Mental Status altered status such as slurred speech, clumsiness, or weakness.
- Skin temperature, color, injuries

A student or instructor who does not meet these guidelines 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, these guidelines 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 THIS GUIDELINE 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 APPROPRIATE DIVISION CHIEF AS PART OF THE NORMAL SCHOOL PACKAGE.

I understand that the personal health information being documented on this form is in compliance with NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments, 2003 Edition as referenced in NFPA 1403: Standards for Live Burn Exercises. All personal information gathered on this form will be used for the sole purpose of evaluation for continued participation during Live Fire Training Evolutions.

Furthermore, I give the lead Emergency Medical Service Agency and Commonwealth of Virginia licensed Emergency Medical provider the authority to use my personal information listed within this form if I become incapacitated and the need for medical transport is required for continuation of care at an approved medical facility.

I understand I have the right to revoke the authority at any time. I understand that if I revoke this authority I must do so in writing and present my written revocation to the Virginia Department of Fire Programs. The information contained in this form will be held confidential for a period of not less than 5 years and is not to be shared with anyone other than the individuals having interest in my immediate medical condition. I understand the revocation will not apply to information that has already been released in response to this authority. This authorization will expire 30 days from the date listed below.

In accordance with The Health Insurance Portability and Accountability Act of 1996 (HIPAA) I understand that any disclosure of information carries with it the potential for an unauthorized redisclosure and the information may not be protected by federal confidentiality rules.

| Date of Live Burn Exercise | |
|----------------------------|------------|
| Printed Name: | Signature: |

| d Inst/IC: | | | |
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| ctor's Name: | | I | |
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| Date | Time | Max Temperature Spike | Sustained Temperature |
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NFPA 1403 Checklist

LIVE FIRE EVOLUTION SAMPLE CHECKLIST

| PERMITS, DOCUMENTS, NOTIFICATIONS, INSURANCE | 7. Periodic weather reports obtained |
|---|---|
| 1. Written documentation received from owner: Permission to burn structure Proof of clear title Certificate of insurance cancellation Acknowledgment of postburn property condition | 8. Parking areas designated and marked: Apparatus staging Ambulances Police vehicles Press vehicles Private vehicles |
| 2. Local burn permit received | Operations area established and perimeter marked |
| 3. Permission obtained to utilize fire hydrants | 10. Communications frequencies established, |
| Notification made to appropriate dispatch office of date, time, and location of burn | equipment obtained |
| 5. Notification made to all affected police agencies: Received authority to block off roads Received assistance in traffic control | TRAINING STRUCTURE PREPARATION 1. Training structure inspected to determine structural integrity |
| 6. Notification made to owners and users of adjacent property of date, time, and location | 2. All utilities disconnected (acquired structures only) |
| of burn 7. Liability insurance obtained covering damage to other property | 3. Highly combustible interior wall and ceiling coverings removed |
| | 4. All holes in walls and ceilings patched |
| 8. Written evidence of prerequisite training obtained from participating students from outside agencies | 5. Materials of exceptional weight removed from above training area (or area sealed from activity) |
| | the carry y |
| PREBURN PLANNING | 6. Ventilation openings of adequate size precut |
| 1. Preburn plans made, showing the following: Site plan drawing, including all exposures Floor plan detailing all rooms, hallways, and exterior openings Location of command post Position of all apparatus | 6. Ventilation openings of adequate size precut for each separate roof area 7. Windows checked and operated, openings closed. 8. Doors checked and operated, opened or closed, as needed 9. Training structure components checked and operated: |
| 1. Preburn plans made, showing the following: Site plan drawing, including all exposures Floor plan detailing all rooms, hallways, and exterior openings Location of command post | 6. Ventilation openings of adequate size precut for each separate roof area 7. Windows checked and operated, openings closed. 8. Doors checked and operated, opened or closed, as needed 9. Training structure components checked and operated: |
| 1. Preburn plans made, showing the following: Site plan drawing, including all exposures Floor plan detailing all rooms, hallways, and exterior openings Location of command post Position of all apparatus Position of all hoses, including backup lines Location of emergency escape routes Location of emergency evacuation assembly area Location of ingress and egress routes for | 6. Ventilation openings of adequate size precut for each separate roof area 7. Windows checked and operated, openings closed. 8. Doors checked and operated, opened or closed, as needed 9. Training structure components checked and operated: |
| 1. Preburn plans made, showing the following: Site plan drawing, including all exposures Floor plan detailing all rooms, hallways, and exterior openings Location of command post Position of all apparatus Position of all hoses, including backup lines Location of emergency escape routes Location of emergency evacuation assembly area Location of ingress and egress routes for emergency vehicles | 6. Ventilation openings of adequate size precut for each separate roof area 7. Windows checked and operated, openings closed. 8. Doors checked and operated, opened or closed, as needed 9. Training structure components checked and operated: Roof scuttles Automatic ventilators Mechanical equipment Lighting equipment Manual or automatic sprinklers Standpipes 10. Stairways made safe with railings in place 11. Chimney checked for stability |
| 1. Preburn plans made, showing the following: Site plan drawing, including all exposures Floor plan detailing all rooms, hallways, and exterior openings Location of command post Position of all apparatus Position of all hoses, including backup lines Location of emergency escape routes Location of emergency evacuation assembly area Location of ingress and egress routes for emergency vehicles 2. Available water supply determined 3. Required fire flow determined for the acquired structure/live fire training structure/burn prop and exposure buildings 4. Required reserve flow determined (50 percent) | 6. Ventilation openings of adequate size precut for each separate roof area 7. Windows checked and operated, openings closed. 8. Doors checked and operated, opened or closed, as needed 9. Training structure components checked and operated: Roof scuttles Automatic ventilators Mechanical equipment Manual or automatic sprinklers Standpipes 10. Stairways made safe with railings in place 11. Chimney checked for stability 12. Fuel tanks and closed vessels removed or adequately vented |
| 1. Preburn plans made, showing the following: Site plan drawing, including all exposures Floor plan detailing all rooms, hallways, and exterior openings Location of command post Position of all apparatus Position of all hoses, including backup lines Location of emergency escape routes Location of emergency evacuation assembly area Location of ingress and egress routes for emergency vehicles 2. Available water supply determined 3. Required fire flow determined for the acquired structure/live fire training structure/burn prop and exposure buildings 4. Required reserve flow determined (50 percent of fire flow) | 6. Ventilation openings of adequate size precut for each separate roof area 7. Windows checked and operated, openings closed. 8. Doors checked and operated, opened or closed, as needed 9. Training structure components checked and operated: Roof scuttles Automatic ventilators Mechanical equipment Lighting equipment Manual or automatic sprinklers Standpipes 10. Stairways made safe with railings in place 11. Chimney checked for stability 12. Fuel tanks and closed vessels removed or adequately vented 13. Unnecessary inside and outside debris removed |
| 1. Preburn plans made, showing the following: Site plan drawing, including all exposures Floor plan detailing all rooms, hallways, and exterior openings Location of command post Position of all apparatus Position of all hoses, including backup lines Location of emergency escape routes Location of emergency evacuation assembly area Location of ingress and egress routes for emergency vehicles 2. Available water supply determined 3. Required fire flow determined for the acquired structure/live fire training structure/burn prop and exposure buildings 4. Required reserve flow determined (50 percent) | 6. Ventilation openings of adequate size precut for each separate roof area 7. Windows checked and operated, openings closed. 8. Doors checked and operated, opened or closed, as needed 9. Training structure components checked and operated: Roof scuttles Automatic ventilators Mechanical equipment Manual or automatic sprinklers Standpipes 10. Stairways made safe with railings in place 11. Chimney checked for stability 12. Fuel tanks and closed vessels removed or adequately vented |

LIVE FIRE EVOLUTION SAMPLE CHECKLIST (continued)

| eliminated | Approved full protective clothing |
|--|--|
| 17. Hazardous trees, brush, and surrounding vegetation removed | ☐ Self-contained breathing apparatus (SCBA)☐ Adequate SCBA air volume |
| 18. Exposures such as buildings, trees, and utilities removed or protected | ☐ All equipment properly donned POSTBURN PROCEDURES |
| 19. All extraordinary exterior and interior hazards remedied | 1. All personnel accounted for |
| 20. Fire "sets" prepared: | 2. Remaining fires overhauled, as needed |
| Class A materials only No flammable or combustible liquids No contaminated materials | 3. Training structure inspected for stability and hazards where more training is to follow (see Training Structure Preparation) |
| | 4. Training critique conducted |
| PREBURN PROCEDURES | 5. Records and reports prepared, as required: |
| 1. All participants briefed: □ Training structure layout □ Crew and instructor assignments □ Safety rules □ Training structure evacuation procedure □ Evacuation signal (demonstrate) 2. All hose lines checked: | ☐ Account of activities conducted ☐ List of instructors and assignments ☐ List of other participants ☐ Documentation of unusual conditions or events ☐ Documentation of injuries incurred and treatment rendered ☐ Documentation of changes or deterioration |
| □ Sufficient size for the area of fire involvement □ Charged and test flowed □ Supervised by qualified instructors □ Adequate number of personnel ■ 3. Necessary tools and equipment positioned | of live fire training structure Acquired structure release Student training records Certificates of completion Building and property released to owner, release document signed |
| | |

RESPONSIBILITIES OF PERSONNEL

| INSTRUCTOR-IN-CHARGE | SAFETY OFFICER |
|--|--|
| 1. Plan and coordinate all training activities | 1. Prevent unsafe acts |
| Monitor activities to ensure safe practices | 2. Eliminate unsafe conditions |
| 3. Inspect training structure integrity prior to | 3. Intervene and terminate unsafe acts |
| each fire4. Assign instructors: | 4. Supervise additional safety personnel, as needed |
| □ Attack hose lines □ Backup hose lines | 5. Coordinate lighting of fires with instructor- in-charge |
| □ Functional assignments □ Teaching assignments | 6. Ensure compliance of participants' personal equipment with applicable standards: |
| 5. Brief instructors on responsibilities: □ Accounting for assigned students □ Assessing student performance | ☐ Protective clothing ☐ Self-contained breathing apparatus (SCBA) ☐ Personal alarm devices, where used |
| □ Clothing and equipment inspection □ Monitoring safety □ Achieving tactical and training objectives | Ensure that all participants are accounted for, both before and after each evolution |
| 6. Assign coordinating personnel, as needed: | STUDENT |
| ☐ Emergency Medical Services | 1. Acquire prerequisite training |
| ☐ Communications ☐ Water supply | Become familiar with building layout |
| □ Apparatus staging | 3. Wear approved full protective clothing |
| □ Equipment staging | 4. Wear approved SCBA |
| ☐ Breathing apparatus ☐ Personnel welfare | 5. Obey all instructions and safety rules |
| □ Public relations | |
| | Provide documentation of prerequisite training, |
| Ensure adherence to this standard by all persons within the training area | 6. Provide documentation of prerequisite training, where from an outside agency |
| | |
| persons within the training area | |
| persons within the training area INSTRUCTOR 1. Monitor and supervise assigned students | |

Bedford County Fire & Rescue

Acquired Structure Program

Property Owner Packet



BEDFORD COUNTY FIRE AND RESCUE DEPARTMENT ACQUIRED STRUCTURE PROGRAM

Thank you for your interest in the Bedford County Fire and Rescue Department's (BCoFR) acquired structure program. The BCoFR actively seeks out buildings to use for training as this provides valuable hands-on training for all members of our agency. This program would not be possible without the generosity of members in our community.

The type of training our agency conducts with the acquired structure program varies based upon the building type, construction, and the project timeline. We accept all types of buildings, with a few caveats outlined below. BCoFR has three paths within the acquired structure pipeline: non-destructive, destructive, and live-fire training. Our training is scalable to fit the building, from simple non-destructive training to more complicated live-fire training evolutions. Most importantly, we are flexible to adapt to the timeline of the project. It is our mission to keep the process simple and easy for those who wish to donate a building for training.

Destructive training allows BCoFR personnel the chance to realistically practice skills such as: fire attack methods (hose stretches and fire attack techniques), ventilation methods (cutting holes in the roof), forcible entry (forcibly opening doors, cutting security bars off windows, etc.), search and rescue, ladder throws, firefighter survival techniques, and occasionally live-fire training. Although a building may be used for training fires, the intent is not to "burn the structure down." Our live-fire program utilizes single-family and multi-family dwellings to set controlled fires that help educate our members in a way that is unachievable elsewhere. These controlled ignitions are aimed at helping firefighters stay safe through education while more effectively protecting people and property.

Although we understand the buildings are going to be torn down, and frequently have passed their useful life, we will reject buildings that are structurally unsound to the point of being hazardous. Likewise, if a building has been infested with rodents, or has been inhabited by transients and contains fecal material, syringes, etc., we may reject the building due to the biohazards present.

One of our acquired structure program team members will be assigned to guide you through the process, and they are happy to answer any questions. For your convenience, there is a chart that outlines how our donation process works as well as a checklist included in this packet. Generally, paperwork from start to finish only takes a few days, at most. In many cases, we can mobilize units to train at the site within 24 hours after a site visit by a BCoFR acquired structure program representative.

Requirements for participation in the BCoFR's Acquired Structure Program:

- The structure/ property must be within the boundaries of Bedford County.
- A demolition permit must be issued (Destructive and Non-Live Fire Training are both considered a form of demolition)
- > All utilities must be disconnected
- An asbestos survey is required. (Required for demolition permit)
- Provide Certificate of Insurance Cancelation
- Provide proof of ownership and proof of a clear title.

DOCUMENTS AND REQUIREMENTS TO OBTAIN A PERMIT TO DEMOLISH A STRUCTURE

At the time a building permit application for a demolition is submitted, the permit applicant must provide written evidence that all utility connections to the structure (including all service connections and appliance equipment) have been removed or sealed and plugged in a safe manner, or that the structure is not served by the utility (e.g., if a structure is not served by natural gas). Typically, the following is required:

Natural Gas – A letter from the gas company serving the area in which the structure is located specifying either that gas service has been disconnected or that the structure is not served by natural gas.

Electricity – A letter from the electric company serving the area in which the structure is located stating that service to the property has been disconnected or the structure is not served by electricity. NOTE: If electricity, gas or water is to be disconnected from an accessory structure without removal of the utility service from the property, an electrical or plumbing permit must be obtained to disconnect the electricity or plumbing from the structure and the permit(s), (as appropriate), must be obtained and must have received an approved final inspection.

Public Water Service – If the structure is served by public water, a letter from the water authority stating that the water service has been disconnected.

Public Sewer Service – If the structure is on public sewer, evidence of sewer cap-off must be provided. This requires that a plumbing permit be obtained to cap-off the sewer line and the permit must have received an approved final inspection.

If the property is served by a well, the permit applicant must submit a copy of a Well Abandonment Release form with the building permit application. The form can be obtained from Health Department.

If the property is served by a septic system, the permit applicant must submit a Septic Abandonment Release form with the building permit application. The form can be obtained from Bedford County Health Department.

The permit applicant must also submit an Asbestos Demolition Report that verifies that the property was inspected and that no asbestos is present.

Certificate of Authorization and Temporary Liability Release Form

LIVE FIRE TRAINING EXERCISE CERTIFICATE OF AUTHORIZATION

| This is to certify that I, Address: |
|--|
| Am the true owner or authorized agent of the owner for the property located at (address): specifically identified at |
| Tax Map ID # For authorized agent, documentation identifying agent's authority is required (power- |
| of-attorney, executor/administrator qualification, conservatorship order, etc.). |
| I further certify that a demolition permit has been secured from the Land Developmental Services, Permit Branch, and is described as Permit # Issued on (date) / /, and that all public utilities have been removed or disconnected from the above described property. I hereby grant permission to the Bedford County Department of Fire and Rescue to conduct a training exercise on the above premises and to destroy, by burning, such building(s) as designated on the above property. I agree to remove any remaining hazardous conditions including but not limited to open pits, basements and wells, standing walls and chimney, and burned and unburned debris after the completion of the training exercise. I understand that the designated building(s) may not be destroyed or may only be partially destroyed by BCoFR if circumstances beyond the control of the Department |
| destroyed by Deof R if encumstances beyond the control of the Department |
| Permission is hereby granted to the Bedford County Department of Fire and Rescue to utilize for non-destructive or destructive training such buildings as designated on the boxes below described property. |
| □ Non-destructive |
| □ Destructive |
| ☐ Live Fire |
| |
| It is agreed that I will not hold Bedford County or BCoFR or any of its officers, agents, or employees liable for any damage to the above-described property. In return, Bedford County agrees not to bring suit to exercise its right or subrogation under Virginia Code 3 65.1-41 (1987) against me and/or my representative for any personal injury to a Bedford County Career, Recruit, Volunteer Firefighter or other Department of Fire and Rescue exercise participant incurred during the training exercise on the site. Bedford County further agrees not to bring suit for damage to any self- insured equipment incurred during the training exercise on the site. |
| Date: Property Owner or Authorized Representative |
| Troping 6 mail of Frankolmon technological t |
| |
| Date: |
| Bedford County Fire and Rescue Representative |

This guide has been prepared for property owners who want to demolish a single-family dwelling or a residential accessory structure, e.g., a shed greater than 150 square feet in area, carport, garage, etc. This information is based on the requirements of Department policy and the Virginia Uniform Statewide Building Code (VUSBC).

PROPERTY OWNER'S STEP-BY-STEP CHECKLIST

| Q . | PROPERTY OWNER'S STEP-BY-STEP CHECKLIST | | | | | |
|------------|---|---|-----------------|--|--|--|
| Step | Property Owner Requirements | Contact Person and Phone Number | Completion Date | | | |
| 1 | Schedule Inspection of Property to determine training value. If accepted for training, proceed with the steps two through six. | Local Volunteer Fire Department Point of Contact or the Training Captain at 540-875- 6377 | | | | |
| 2 | Contact a Virginia Licensed Asbestos Inspector to perform a full asbestos inspection on the donated structure(s). | A list of licensed inspectors can be obtained from the Virginia Department of Housing and Community Development Occupation and Regulations | | | | |
| 3 | Provide a copy of the full asbestos report/abatement report to the Training Captain. This will certify that the structure contained no asbestos or that the asbestos has been abated. | Bedford County Department of Fire and Rescue Training Captain 1185 Turning Point Road Bedford VA 24523 540-587-0700 Ext 1403 | | | | |
| 4 | Obtain a demolition permit from the Bedford County Building Officials Officer | Bedford County Building Official County Administration Building 122 East Main Street, Suite G-03 Bedford, VA 24523 Phone: (540) 586-7616 | | | | |
| 5 | Provide proof of utility control to include electric, water, gas, and septic. | Bedford County Department of Fire and Rescue Training Captain 1185 Turning Point Road Bedford VA 24523 540-587-0700 Ext 1403 | | | | |
| 6 | Provide proof of clear title and proof of insurance cancelation. Complete and Sign: Certificate of Authorization and Temporary Liability Release Form | Bedford County Department of Fire and Rescue Training Captain 1185 Turning Point Road Bedford VA 24523 540-587-0700 Ext 1403 | | | | |

PROPERTY OWNER'S RESPONSIBILITY TO RENDER PROPERTY SECURE

In accordance with Section 110 of the Virginia Statewide Fire Prevention Code - UNSAFE STRUCTURES OR STRUCTURES UNFIT FOR HUMAN HABITATION of the Virginia Property Maintenance Code all structures which have been rendered unsafe or unfit shall be remedied by either securing against public entry or razed and removed. By authority of the Property Maintenance Code Official, it is the responsibility of the owner of such property to either make all doors and windows secure, completely fence the property to prohibit entry or raze and remove said structure, within 24 hours after the conclusion of the BCoFR training exercise. Failure to do so within 24 hours will allow the County of Bedford to reserve the right to perform the services required to secure the property and recover the costs from the property owner(s) for services rendered.

| Property Owner Acknowledgement | | |
|---|-------|--|
| | | |
| | Date: | |
| Property Owner or Authorized Representative | | |