

# ***Snohomish County Fire Chiefs Association***

## **DOCUMENT 90-01-11**

### **ACQUIRED STRUCTURES / LIVE BURNS / NON-DESTRUCTIVE TRAINING**

#### **Purpose:**

- A. To provide a standardized process for the legal acquisition of donated structures for Fire Department Training.
- B. To provide a standardized process to conduct live fire training in an acquired structure.
- C. To provide a standardized process for destructive and non-destructive training in an acquired structure.
- D. To provide a checklist of items to be addressed prior to, during, and after conducting a controlled, live-fire training burn in an acquired structure.

#### **References:**

- A. NFPA 1403 Standard on Live Fire Training Evolutions 2007 Edition
- B. WAC 296 -305 Safety Standards for Firefighters
- C. PSCAA regulation 1.8 Fire Department Training Exercises
- D. PSCAA regulation 3.4 Asbestos Control Standard

#### **Definitions:**

- **ACM** – Asbestos Containing Material
- **ACM Survey Report** - An ACM Survey Report shall be completed by a Fire Service AHERA Trained Building Inspector for all acquired structures
- **AHERA** – Asbestos Hazard Emergency Response Act
- **ASHARA** – Asbestos School Hazard Abatement Reauthorization Act
- **Building Inspector** – A person who conducts a survey of a building for the presence of asbestos containing materials. This person must be accredited under AHERA and ASHARA regulations.
- **Burn Barrels**- Burn barrel use will not be considered destructive training or live fire provided proper exposure protection is in place.
- **GFS** – Good Faith survey – this survey must be conducted by a private contracted AHERA accredited building inspector.
- **Type I training** – Non-abated structure used for non-destructive training.
- **Type II training** – Non-abated structure used for destructive training.
- **Type III training** – Abated structure used for destructive training.
- **Type IV training** – Live Fire

**Discussion:**

On occasion, the Department is fortunate to have the opportunity to acquire structures from the community to utilize for training purposes. These structures can be used for non-destructive training evolutions such as search and rescue, ground ladder work, firefighter survival, and a plethora of other training evolutions. These structures can also be used to conduct controlled, live-fire training burns. To plan and manage the live-fire burns in a safe and effective manner, and to have real training value, a comprehensive list of procedural milestones must be met.

This procedure will address the five parts of this process:

1. The legal acquisition of the structure.
2. Type I Training – Non-abated structure used for non-destructive training.
3. Type II training – Non-abated structure used for destructive training.
4. Type III Training – Abated structure used for destructive training.
5. Type IV Training – Live Fire

**1. The Legal Acquisition of the Structure-Permits, Documents, Notifications, Insurance:**

- a. The following items must be completed to legally acquire the donated structure for training purposes and ensure that the department's liability is minimized:
- b. Receive written documentation from property owner:
  - i. Current document showing clear title. (Deed of Trust)
  - ii. Signed "Agreement Regarding Destruction of House" (SCFD #1 model approved by legal counsel/can be modified or attached as model document.)
  - iii. Letter of permission to use structure for training.
  - iv. Certificate of insurance cancellation or letter of understanding from the insurance carrier.
  - v. Jurisdiction specific demolition permit (City or County)
  - vi. Copy of Asbestos Survey/Abatement Completion certificate.
  - vii. Acknowledgement of post-training house condition.
- c. Complete Puget Sound Clean Air Agency (PSCAA) Notice of Intent Form 66-160 filed by the homeowner. Note: Confirm in Section F of the form that the Fire Department is NOT the demolition contractor as this could make our agency responsible for demolition expenses. Additionally, the Clean Air Agency Regulation I, Section 8.08(b)(2) requires fire departments conducting fire training exercises to keep a copy of the Asbestos/Demolition Notification printout and asbestos survey on site during the training. Notify owners and users of adjacent property of date(s), time(s), and burn location. It is recommended that residents and users within 500 feet of the structure be notified as well as occupants of any other occupancy or use that may be affected. The burn will be canceled if complaints cannot be resolved in a reasonable manner.
- d. Secure hydrant use approval from appropriate water agencies
- e. Email press release to local print media of intent to burn.

- f. Notify dispatch of the burn's date(s), time(s), and location.
- g. Notify all affected law enforcement agencies.
- h. Receive authority to block off roads. (Public Works)
- i. Receive assistance in traffic control.
- j. Confirm that utilities have been secured (Gas and Power).

## **2. Type I Non-Destructive Training Non-Abated Building**

- a. No Good Faith Survey is required.
- b. Asbestos Containing Material (ACM) Survey report is required.
- c. Do not damage or remove any building materials.
- d. Walk crews through the structure prior to the training event and show them any suspected ACM locations.
- e. ACM will not have to be labeled provided the building is posted with a summary report of the ACM Survey.
- f. Firefighters participating in Type I training shall have completed their asbestos awareness training.
- g. If your department is hosting other jurisdictions you must provide a copy of the ACM Survey before training begins.

## **3. Type II-Destructive Training Non-Abated Building**

- a. The owner shall provide a Good Faith Survey for any material to be breeched or damaged to ensure no ACM is present.
- b. Asbestos Containing Material Survey Report is required
- c. Do not remove any materials not tested.
- d. Walk crews through the structure prior to the training event and show them any suspected ACM locations.
- e. Label ACM located in the work areas with highly visible latex spray paint.
- f. Firefighters participating in Type II training shall have completed their asbestos awareness training.
- g. If your department is hosting other jurisdictions you must provide a copy of the ACM Survey before training begins.
- h. For structures built after 1981 you can legally presume that thermal system insulation, surfacing material, vinyl and asphalt flooring including mastics have no asbestos.
- i. All participants must wear SCBA and turnouts when inside the building and decontamination procedures must be incorporated after the training

## **4. Type III-Destructive Training Abated Building**

- a. Good Faith Survey is required for the entire property
- b. ACM Survey is required to verify abatement has been completed  
Ensure all >1% asbestos is removed. (This should be noted on the ACM Survey Report)
- c. Walk through the property with the GFS and identify the locations of <1% asbestos, suspect unabated materials or suspect materials not tested.  
Report untested or remaining asbestos to the owner-do not drill until this material has been removed or tested.

- d. Walk crews through the building and show them the <1% asbestos locations. *You may damage <1% asbestos if: The building will be demolished and only asbestos contractors or demolition contractors are allowed access to the site when the drill has concluded; and you inform the owner in writing you have left damaged <1% asbestos and instruct the owners to convey your written notice to the contractors before they access the site.*
- e. No labeling is required.
- f. Firefighters participating in Type II training shall have completed their asbestos awareness training.
- g. If your department is hosting other jurisdictions you must provide a copy of the ACM Survey before training begins.
- h. All participants must wear SCBA and turnouts when inside the building and decontamination procedures must be incorporated after the training.

#### **5. Type IV-Live Fire Training (Must meet the NFPA 1403 Requirements)**

- a. Good Faith Survey is required for the entire property.
- b. ACM Survey is required to verify abatement has been completed.
- c. Ensure all >1% asbestos is removed. (This should be noted on the ACM Survey Report)
- d. Walk through the property with the GFS and identify the locations of <1% asbestos, suspect unabated materials or suspect materials not tested. Report untested or remaining asbestos to the owner-do not drill until this material has been removed or tested.
- e. Walk crews through the building and show them the <1% asbestos locations.
- f. No labeling is required.
- g. Burning buildings with <1% asbestos is allowed.
- h. All participants must wear SCBA and turnouts when inside the building and decontamination procedures must be incorporated after the training.
- i. Firefighters participating in Type IV training shall have completed their asbestos awareness training.
- j. If your department is hosting other jurisdictions you must provide a copy of the ACM Survey before training begins.

## Pre-Burn/Training Checklist

Site Address: \_\_\_\_\_

Owner Name: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Officer/Instructor-in-Charge: \_\_\_\_\_

Planned Date of Burn: \_\_\_\_\_

### **INITIAL CONSIDERATIONS**

In preparation for training, all structures will be assessed for potential hazards. Proper PPE must be worn during this process. If in doubt, the initial survey should be done with a partner in full turnouts and SCBA.

1. Biohazard? \_\_\_\_\_  
Description: \_\_\_\_\_

Remedy: \_\_\_\_\_

PPE Required in Structure (N95 mask, SCBA, etc.): \_\_\_\_\_

2. Mold? \_\_\_\_\_  
Description: \_\_\_\_\_

Remedy: \_\_\_\_\_

PPE Required in Structure (N95 mask, SCBA, etc.): \_\_\_\_\_

3. Rodent/Insect Infestation? \_\_\_\_\_  
Description: \_\_\_\_\_

Remedy: \_\_\_\_\_

PPE Required in Structure (N95 mask, Tvek coveralls, etc.): \_\_\_\_\_

4. Other Hazard? \_\_\_\_\_  
Description: \_\_\_\_\_

Remedy: \_\_\_\_\_

PPE Required in Structure : \_\_\_\_\_

If hazards cannot be satisfactorily remedied the structure will not be accepted by the Fire Department.

Recommendation to proceed with training: Yes \_\_\_\_\_ No \_\_\_\_\_

### **BUILDING PREPARATION**

	1.	Inspect building to determine structural integrity.
	2.	Disconnect all utilities in acquired building <u>only</u> . Call utility companies early.
	3.	Remove highly combustible interior wall and ceiling coverings.
	4.	Patch all holes in walls and ceilings.
	5.	Remove materials of exceptional weight from above the training area, or seal-off the area from activity.
	6.	Pre-cut ventilation openings of adequate size for each separate roof area.
	7.	Check and operate windows, close openings.
	8.	Check and operate doors, open and close as needed.
	9.	Check and operate structure components:
		Roof scuttles.
		Automatic ventilators.
		Mechanical equipment.
		Lighting equipment.
		Manual or automatic sprinklers.
		Standpipes.
	10.	Check for safe stairways; ensure railings in place.
	11.	Check chimney for stability.
	12.	Remove or adequately vent fuel tanks and closed vessels.
	13.	Remove unnecessary inside and outside debris.
	14.	Check for safe porches and outside steps.
	15.	Fence or fill cisterns, wells, cesspools, and other ground openings.
	16.	Eliminate hazards from toxic weeds, hives, and vermin.
	17.	Remove hazardous trees, brush, and surrounding vegetation.
	18.	Remove or protect exposures such as buildings, trees, and utilities.
	19.	Remedy all extraordinary exterior and interior hazards.
	20.	Prepare fire "sets:"
		Class A materials only.
		No flammable liquids.
		No contaminated materials.
	21.	Complete Safety Survey.
	22.	Order portable toilet
	23.	Schedule Support 7, if available, to arrive late morning or plan a lunch.

## **PRE-BURN PLAN**

The Instructor-in-Charge shall develop a pre-burn plan based upon information obtained during the pre-plan and building preparation stages. To assist in the pre-burn process, the Instructor-in-Charge shall review NFPA 1403, Live Fire Training Evolution in Structures.

The Pre-Burn Plan shall include:

- Identifying the location of the fire.
- Establishing the fire load.
- Establishing the position of attack lines.
- Establishing the position of back-up lines.
- Development of a rescue plan.
- Development of emergency evacuation assembly area.

All personnel involved in the drill shall be instructed on each element of the pre-burn plan prior to igniting the fire.

## **CHECKLIST**

The checklist below is an appendix to NFPA Standard 1403 Live Fire Training Evolutions in Structures, and is used in planning and management of the live-fire burn.

To ensure a comprehensive review of each individual checklist item, the Instructor-in-Charge shall enter a check (√) on the appropriate line to indicate the item has been addressed, or an N/A indicating the item is Not Applicable to the burn plan.

## **PERMITS, DOCUMENTS, NOTIFICATIONS, INSURANCE**

- \_\_\_\_ 1. Receive written documentation from property owner:
  - \_\_\_\_ Letter of permission to burn the structure.
  - \_\_\_\_ Proof of clear title.
  - \_\_\_\_ Certificate of insurance cancellation or letter of understanding from the insurance carrier.
  - \_\_\_\_ Authority having jurisdiction Demolition Permit.
  - \_\_\_\_ Copy of asbestos survey/abatement report and certification.
  - \_\_\_\_ Acknowledgement of post-burn property condition.
- \_\_\_\_ 2. Complete Puget Sound Clean Air Agency (PSCAA) Notice of Intent Form 66-160 filed by the homeowner. Note: Confirm in Section F of the form that Fire Department is NOT the demolition contractor as this could make the Fire Department responsible for demolition expenses. Additionally, the Clean Air Agency Regulation I, Section 8.08(b)(2) requires fire departments conducting fire training exercises to keep a copy of the Asbestos/Demolition Notification printout and asbestos survey on site during the training.
- \_\_\_\_ 3. Notify owners and users of adjacent property of date(s), time(s), and burn location. It is

\_\_\_\_\_ recommended that residents and users within 500 feet of the structure be notified as well as occupants of any other occupancy or use that may be affected. The burn will be canceled if complaints cannot be resolved in a reasonable manner.

- \_\_\_\_\_ 4. Secure hydrant use approval. Advise appropriate agencies.
- \_\_\_\_\_ 5. Email press release to appropriate news agencies regarding intent to burn.
- \_\_\_\_\_ 6. Notify dispatch of the burn's date(s), time(s), and location.
- \_\_\_\_\_ 7. Notify all affected law enforcement agencies:
  - \_\_\_\_\_ Receive authority to block off roads (Public Works).
  - \_\_\_\_\_ Receive assistance in traffic control.

## **PRE-BURN/TRAINING PLANNING**

- \_\_\_\_\_ 1. Make pre-burn plan showing the following:
  - \_\_\_\_\_ Site plan drawing, including all exposures.
  - \_\_\_\_\_ Building plan, including overall dimensions.
  - \_\_\_\_\_ Floor plan detailing all rooms, hallways, and exterior openings.
  - \_\_\_\_\_ Location of Command Post.
  - \_\_\_\_\_ Position of all apparatus.
  - \_\_\_\_\_ Position of all hoses, including back-up lines.
  - \_\_\_\_\_ Location of emergency escape routes.
  - \_\_\_\_\_ Location of emergency evacuation assembly area.
  - \_\_\_\_\_ Location of ingress and egress routes for emergency vehicles.
- \_\_\_\_\_ 2. Determine available water supply.
- \_\_\_\_\_ 3. Establish separate water sources for attack and back-up hoselines.
- \_\_\_\_\_ 4. Obtain periodic weather reports. Avoid stages of burn bans initiated by Snohomish County 1-800-595-4341
- \_\_\_\_\_ 5. Designate and mark parking areas:
  - \_\_\_\_\_ Apparatus staging.
  - \_\_\_\_\_ Ambulances.
  - \_\_\_\_\_ Police vehicles.
  - \_\_\_\_\_ Press vehicles.
  - \_\_\_\_\_ Private vehicles.
- \_\_\_\_\_ 6. Establish operations area and mark perimeter.
- \_\_\_\_\_ 7. Establish communication frequencies, obtain equipment.
- \_\_\_\_\_ 8. Gather sufficient Class A combustibles for burning (pallets from local Building Supply Co.)
  - \_\_\_\_\_ Cover to keep dry.
  - \_\_\_\_\_ Get a few bales of untreated straw to assist in igniting fires.
  - \_\_\_\_\_ Obtain from Public Works at least two torches for igniting fires.
  - \_\_\_\_\_ Purchase three butane gas grill lighters to assist in igniting torch.

## **PRE-BURN/TRAINING PROCEDURES**

- \_\_\_\_\_ 1. Brief all participants:
  - \_\_\_\_\_ Building layout; walk through with students.
  - \_\_\_\_\_ Crew and instructor assignments.
    - \_\_\_\_\_ Instructor-in-charge
    - \_\_\_\_\_ Instructor for each group (not>5:1)
    - \_\_\_\_\_ Safety Officer
  - \_\_\_\_\_ Safety rules.
  - \_\_\_\_\_ Outline egress routes; confirm no fires lit in egress routes.
  - \_\_\_\_\_ Building evacuation and abandonment procedures.
  - \_\_\_\_\_ Evacuation/abandonment signals; demonstrate.
  - \_\_\_\_\_ Mayday procedures.
  - \_\_\_\_\_ RITE activation
- \_\_\_\_\_ 2. Check all hoselines:
  - \_\_\_\_\_ Sufficient size for area of fire involvement.
  - \_\_\_\_\_ Back-up hose line from separate water source.
  - \_\_\_\_\_ Charged and test-flowed.
  - \_\_\_\_\_ Supervised by qualified instructors.
  - \_\_\_\_\_ Adequate number of personnel
- \_\_\_\_\_ 3. Position necessary tools and equipment.
- \_\_\_\_\_ 4. Check participants:
  - \_\_\_\_\_ Approved full protective clothing (PPE).
  - \_\_\_\_\_ Self-contained breathing apparatus.
  - \_\_\_\_\_ Adequate SCBA air volume.
  - \_\_\_\_\_ All equipment properly donned.
  - \_\_\_\_\_ Safety Officer check before any entries are made.
- \_\_\_\_\_ 5. Pull sheetrock from ceiling and walls in different parts of structure. Note: sheetrock inhibits the burning process; be strategic when removing sheetrock from walls and ceilings. The more sheetrock removed, the larger the fire.

## **INSTRUCTOR-IN-CHARGE**

- 1. Plan and coordinate all training activities.
- 2. Monitor activities to ensure safe practices.
- 3. Inspect structure integrity prior to each fire.
- 4. Assign instructors:
  - Attack hoselines.
  - Back-up hoselines.
  - Functional assignments.
  - Teaching assignments.
- 5. Brief instructors on responsibilities:
  - Accounting for assigned students.
  - Clothing and equipment inspection.
  - Monitoring safety.
  - Achieving tactical and training objectives.
- 6. Assign coordinating personnel, as needed:
  - Emergency medical services.
  - Communications.
  - Water supply.
  - Apparatus staging.
  - Equipment staging.
  - Breathing apparatus.
  - Personnel welfare.
  - Public relations.
- 7. Ensure adherence to this standard by all persons within the training area.

## **SAFETY OFFICER**

- 1. Prevent unsafe acts.
- 2. Eliminate unsafe conditions.
- 3. Intervene and terminate unsafe acts.
- 4. Supervise additional safety personnel as needed.
- 5. Coordinate fire ignition with Instructor-In-Charge.

- \_\_\_ 6. Ensure compliance of participants' personal equipment to applicable standards:
  - \_\_\_ Protective clothing.
  - \_\_\_ SCBA.
  - \_\_\_ Personal alarm devices.
- \_\_\_ 7. Ensure all participants are accounted for both before and after each evolution.
- \_\_\_ 8. Complete Safety Survey before training evolutions and communicate hazards during safety briefing.

**PRE-BURN COMMENTS:**

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**POST-BURN PROCEDURES**

- \_\_\_ 1. Account for all personnel.
- \_\_\_ 2. Overhaul remaining fires as needed.
- \_\_\_ 3. Inspect structure for stability and hazards if more training is scheduled, see Building Preparation above.
- \_\_\_ 4. Conduct training critique.
- \_\_\_ 5. Prepare records and reports as required:
  - \_\_\_ Accounting of activities conducted.
  - \_\_\_ List of instructors and assignments.
  - \_\_\_ List of other participants.
  - \_\_\_ Documentation of unusual conditions or events.
  - \_\_\_ Injuries suffered and treatment rendered.
  - \_\_\_ Acquired building release.
  - \_\_\_ Certificates of completion.
  - \_\_\_ Document each training burn and its location, use Pre-Burn Plan in the structure, personnel on initial attack lines, safety crew members, Safety Officer, and any other position outlined on the fire ground.
- \_\_\_ 6. Release building and property to owner, release document signed.

**POST-BURN COMMENTS:**

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