Appendix B-3

Live Fire Training Policy

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SCOPE:

This policy is established to identify the minimum requirements for live fire training evolutions conducted by the New York State Office of Fire Prevention and Control. This policy shall apply to all OFPC sponsored or sanctioned training of firefighters under live fire conditions including coordinated interior and exterior fire suppression. This policy also applies to all OFPC sponsored or sanctioned public fire safety education demonstrations, hands-on fire extinguisher training for the general public as well the use of live fire in training for fire investigation purposes.

National Fire Protection Association Standards 1403 (2012), 1500 (2012) as well as other standards were used as guidelines for the development of this policy. Pursuant to Title 19 NYCRR Part 438, this policy shall be used in conjunction with NFPA 1403 (2012 Edition) as a minimum standard for conducting live fire training and evolutions using live fire.

PURPOSE:

The purpose of this policy is to standardize policy and procedure relating to live fire training during any New York State, Division of Homeland Security and Emergency Services, Office of Fire Prevention and Control's Training Programs as defined in Title 19NYCRR Part 438 and any other evolutions conducted by OFPC using live fire. This policy focuses to maintain a minimum exposure to risk for the participants.

APPLICABILITY:

This document applies to New York State, Division of Homeland Security and Emergency Services, Office of Fire Prevention and Control's Training Programs as defined in Title 19NYCRR Part 438 and any other evolutions conducted by OFPC using live fire.

Section 1 shall be applicable to OFPC; interior and exterior live fire suppression training.
Section 2 shall be applicable to OFPC; interior fire suppression training.
Section 3 shall be applicable to OFPC; exterior fire suppression training.
Section 4 shall be applicable to Firefighter Training, Fire Extinguisher Training.
Section 5 shall be applicable to Public Fire Safety Training, Prevention & Education Demonstrations.
Section 6 shall be applicable to OFPC Fire/Arson Investigation Training.

This policy does not apply to fire department sponsored live fire training activities. Live fire training provided by local fire departments shall have approval of the Authority Having Jurisdiction (AHJ) for the fire department, should be compliant with the current edition of the NFPA Standard 1403 and the OFPC Live Fire Training Best Practices Document.

Section 1. Interior and Exterior Live Fire Suppression Training

1.1. Student Prerequisites

1.1.1. Students shall have supplied a completed "Training Authorization Letter."

1.1.2. Students shall have received training to meet the job performance requirements, listed below, prior to participating in a live fire training evolution.

- 1.1.2.1. Safety
- 1.1.2.2. Fire behavior
- 1.1.2.3. Portable Fire Extinguishers
- 1.1.2.4. Personal Protective Equipment
- 1.1.2.5. Ladders
- 1.1.2.6. Fire hose, appliances and streams
- 1.1.2.7. Overhaul
- 1.1.2.8. Water Supply
- 1.1.2.9. Ventilation
- 1.1.2.10. Forcible Entry
- 1.1.2.11. Building Construction

1.1.3. Students shall have appropriate personal protective equipment (as determined by the lead instructor) available which will be properly worn during training evolutions.

1.2. Safety Officer

1.2.1. A Safety Officer shall be designated for all live fire training evolutions.

- 1.2.1.1. The Safety Officer shall be a Fire Instructor authorized to deliver the course.

1.2.2. The Safety Officer shall have the authority to intervene and control any aspect of the operations when, in his or her judgment, a potential or actual danger, potential for accident, or unsafe condition exists.

1.2.3. The responsibilities of the Safety Officer shall include but not be limited to the following:

- 1.2.3.1. Prevention of unsafe acts.
- 1.2.3.2. Elimination of unsafe conditions.

1.2.4. The Safety Officer shall provide for the safety of all persons at the live fire training evolution.

1.2.5. The Safety Officer shall not be assigned other duties that interfere with their safety responsibilities.

1.2.6. The Safety Officer shall be knowledgeable with the safety features available at the training structure or prop, such as emergency shutoff switches, gas valves, etc.

1.2.7. Additional safety personnel, as deemed necessary by the Safety Officer, shall be positioned to react to any unsafe or threatening condition.

1.3. Instructors

1.3.1. All instructors shall be qualified and authorized to deliver firefighter training according to the New York State, Division of Homeland Security and Emergency Services, Office of Fire Prevention and Control.

1.3.1.1. For the purposes of this policy, the term "authorized" shall require a current Instructor authorization for the course being conducted.

1.3.1.2. The term "qualified" shall indicate the individual has successfully completed a respirator physical, been issued personal protective equipment, completed the course and have on-site access to self-contained breathing apparatus.

1.3.1.3. Firefighter 1 authorized instructors shall be permitted to serve as an additional instructor for live fire training conducted in the Firefighter 2 course.

1.3.2. All instructors shall have completed the Live Fire Training Instructor Authorization.

1.3.2.1. Equivalencies include: Live Fire Safety Training (Course 1A) and Conducting Live Fire Training Evolutions (Course 1B) effective (03/2003) or Live Fire Training (NFPA 1403, 2012 Edition) (Course 6F).

1.3.3. The participating student-to-instructor ratio shall not exceed 5 to 1.

1.3.4. Instructors shall conduct a personnel accountability report (PAR) prior to entering and upon exiting the structure during a live fire training evolution.

1.3.5. A minimum of four Instructors are required for all live fire training evolutions.

1.3.5.1. One Instructor assigned as the Incident Commander.

1.3.5.2. One Instructor assigned to the Attack Crew. (Attachment #4)

1.3.5.3. One Instructor assigned to the Back-Up Crew.

1.3.5.3.1. The Instructor assigned to the Back-Up Crew may also serve as the Ignition Officer for the Fire Control Team (see 1.6).

1.3.5.4. One Instructor assigned as the Safety Officer.

1.3.5.5. One additional Instructor shall be assigned for each additional functional assignment to be performed during the live fire training evolution.

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

1.3.7. 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.

1.3.7.1. A detailed weather report shall be obtained from the National Weather Service site closest to the training center prior to the live fire training evolution taking place.

1.3.7.2. Contact the National Weather Service at www.weather.gov to obtain the information.

1.3.8. All Instructors involved in the live fire training evolution shall comply with the Office of Fire Prevention and Control's respiratory protection policy and adhere to the requirements outlined with in such policy. The lead Instructor shall provide a *copy of the policy* to the support instructors, if necessary. (appendix)

1.3.9. Either the outreach training program live fire evolution checklist (*attachment # 1*) or the Fire Academy live fire evolution checklist (obtained from the course facilitator or program manager) shall be reviewed and completed prior to the start of each live fire training evolution.

1.3.9.1. Completed outreach training program live fire evolution checklist shall be forwarded to the OFPC Headquarters upon completion of the lesson.

1.3.9.2. Completed checklists for evolutions conducted at the Academy of Fire Science shall be filed with the proper Deputy Chief from the respective Branch that is assigned.

1.4. Lead Instructor Responsibilities

1.4.1. The lead State Fire Instructor shall be responsible for full compliance with this policy.

1.4.2. Prior to the ignition of any fire, the lead Instructor shall ensure that all personal protective equipment specified in the OFPC PPE Policy is being worn according to the policy and in accordance with the manufacturer's instructions.

1.4.3. The lead State Fire Instructor shall ensure that the responsibilities of all instructors rotate as to provide rest periods for all instructors.

1.4.4. The lead Instructor shall identify a location for rest and rehabilitation of all personnel operating at the live fire training evolution, including medical evaluation and treatment, food and fluid replacement and relief from climatic conditions in accordance with the circumstances during the training session.

1.4.4.1. There shall be a minimum of 32 ounces of water available per participant per hour of training.

1.4.4.2. Staffing of the rehabilitation station shall not be deemed an instructor for this policy.

1.4.5. Two weeks prior to any live fire training evolution the lead State Fire Instructor for the outreach training program shall contact the Fire Protection Specialist assigned to the Training Administration District and advise them of the following information.

1.4.5.1. Date of the live fire training evolution.

1.4.5.2. Time of the live fire training evolution.

1.4.5.3. Location of the live fire training evolution.

1.4.5.4. Names of all instructors.

1.4.5.5. Fax or email notification of this information to the Office of Fire Prevention and Control Fire Operations and Training Branch at (518) 474-3240 or ofpc.training@dhses.ny.gov is acceptable, by using the form in *attachment # 2* of this document.

1.4.6. The lead Instructor shall establish an emergency notification procedure for real, unexpected incidents that may occur during training.

1.4.7. Upon stopping an evolution due to an accident or safety concern, the lead Instructor shall confer with the Safety Officer and corrective action shall be taken prior to an evolution starting again.

1.4.8. Whenever an evolution is stopped due to an accident or safety concern, the lead instructor shall ensure that a personal accountability report (PAR) is conducted immediately for all personnel operating on scene.

1.5. Training Instructors on How to Use Specialty Props

1.5.1. The Instructors and Safety Officer responsible for conducting live fire training evolutions with gas fueled training systems or other specialty props shall be trained in the operation of the system and the props.

1.5.2. The training of Instructors and Safety Officer shall be performed by an individual

authorized by the gas fueled training system and specialty prop manufacturer or by others qualified to perform this type of training.

1.6. Fire Control Team

1.6.1. The Fire Control Team shall have the responsibility of assisting with the ignition of the training fire and shall be supervised by the Ignition Officer.

1.6.2. The Fire Control Team shall consist of a minimum of two members who are not students.

1.6.3. The Instructor who is assigned the duties of Back-up Crew Instructor shall act as the Ignition Officer and will make up one of the members of the Fire Control Team.

1.6.4. One member of the Fire Control Team shall be in the area to observe the Ignition Officer ignite the fire.

1.6.5. The decision to ignite a training fire shall be made by the lead Instructor in coordination with the Safety Officer.

1.6.6. The fire shall be ignited by the Ignition Officer.

1.6.7. The fire control team shall wear full personal protective equipment, including SCBA, when performing this control function.

1.6.8. A charged hose line shall be available when the Fire Control Team is igniting or tending to any fire.

1.6.9. Fires shall not be ignited without the Instructor assigned as the Safety Officer visually confirming that the fire area is clear of personnel being trained.

1.6.10. All fires shall be extinguished without an excessive period of pre-burn, as soon as the training objectives have been satisfied.

1.7. PPE

1.7.1. Each participant in the area of operations (warm zone) shall be equipped with full protective clothing and those operating in an IDLH environment are required to use SCBA.

1.7.1.1. Full protective clothing shall be helmet with chin strap, hood, gloves, turn-out coat, turn-out pants and boots.

1.7.1.2. The Safety Officer will make the determination to order and ensure all Students, instructors, safety personnel and other personnel to wear a minimum of *full* personal protective equipment when operating within the collapse zone (hot zone) of the structure while the training evolutions are in progress.

1.8. Communications

1.8.1. A method of fire ground communications shall be established to enable coordination among the incident commander, the interior and exterior crews, the safety officer and external requests for assistance.

1.8.2. The lead Instructor shall establish an emergency notification procedure for real, unexpected incidents that may occur during training.

1.8.2.1. The emergency notification shall be tested so that all participants fully understand the procedure, prior to the live fire training.

1.8.2.2. Upon activation of the emergency notification procedure, the participants shall meet at a predefined location for accountability and further instructions.

1.9. EMS

1.9.1. At least one Basic Life Support equipped crew consisting of a minimum of two personnel who shall not be students of the course, with minimum training as an Emergency Medical Technician, shall be on site for live fire training evolutions.

1.9.2. The OFPC Participant Injury form shall be completed and submitted to the Office of Fire Prevention and Control for all injuries and all medical aid rendered, in accordance with the student injury/illness report form (attachment 9).

1.9.3. Should the EMS crew be required to transport a student from the training site, a second unit will be requested. Training evolutions shall be suspended until such time as EMS is on scene.

1.10. Fuel Materials

1.10.1. Fuels shall be limited to non-pressure treated wood and wood products, hay, straw and/or excelsior.

1.10.1.1. Live Fire Training Structures and Props that are specifically designed for and fueled by propane or natural gas shall be permitted.

1.10.1.1.1. Flammable gas fires, in gas-fired live fire training structures, shall not be ignited manually.

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

1.10.3. 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.

1.10.4. Propane lighters, butane lighters, fuses, kitchen-type matches and similar devices are permitted to be used to ignite the training fire if the device is removed immediately after ignition.

1.10.5. Flammable and combustible liquids are not permitted and shall not be used, with the exception of props authorized by the OFPC for Fire Extinguisher Training.

1.10.6. Pressure treated wood, rubber; tires, plastic, mattresses, stuffed furniture, cushions and straw /hay treated with pesticides or harmful chemicals shall not be used.

1.10.7. Hazardous Waste shall not be used in live fire training evolutions.

1.10.8. Flammable metals shall not be permitted for use in live fire training evolutions.

1.11. Pre-burn Plan/Briefing

1.11.1. A pre-burn briefing shall be conducted by the lead instructor, in conjunction with the safety officer, for all participants. All evolutions shall be described and crew assignments shall be made at this time.

1.11.2. All facets of each evolution to be conducted shall be discussed and assignments shall be made for all crews participating in the training session.

1.11.2.1. The location of simulated victims shall not be required to be disclosed, provided that the possibility of victims is discussed in the pre-burn briefing.

1.11.3. All features of the training area and structure shall be included in the briefing.

1.11.4. No person(s) shall play the role of a victim during live fire training evolutions.

1.11.5. There shall be no artificial maydays scripted in any live fire training evolution.

1.11.6. A pre-burn walk-through of the structure shall be conducted with all participants.

1.12. Water Supply

1.12.1. The instructor-in-change and the safety officer shall determine the rate and duration of water flow necessary for each individual live fire training evolution.

1.12.2. Each hose line shall be capable of delivering a minimum of 95 gpm.

1.12.3. Separate sources shall be used for the supply of attack and back-up/safety lines to prevent simultaneous loss of water supply as illustrated in sample options below:

1.12.3.1. Two separate engines with appropriate sized booster tanks and a method of refilling between evolutions.

1.12.3.2. Two separate engines fed by two separate hydrants supplied from two separate water mains.

1.12.3.3. Two engines supplied from a static water source, such as a pond, river, creek, lake or tanker shuttle, providing that the static source is capable of providing minimum water supply.

1.12.4. In accordance with NFPA 1403, the minimum water supply (MWS) per NFPA 1142, shall be calculated for each live fire training structure.

1.12.4.1.1. The minimum water supply shall not be less than 3,000 gallons.

1.13. Heat Stress and Severe Weather

1.13.1. See OFPC Severe Weather and Heat Stress Policy. (Attachment #5)

1.14. OFPC Firefighter Training Series Fire Extinguisher Training

1.14.1. Fire Extinguisher live fire evolutions used to train firefighters shall meet the requirements in Section 4 and shall be exempt from the requirements in all other sections.

1.15. OFPC Prevention/Education Demonstrations or Education

1.15.1. Fire Prevention and Education Training shall meet the requirements in Section 5 and shall be exempt from the requirements in all other sections.

1.16. OFPC Fire/Arson Investigation Training

1.16.1. Fire/Arson Investigation Training shall meet the requirements in Section 6 and shall be exempt from the requirements in all other sections.

2. Section 2 Interior Fire Suppression Training Requirements

2.1. Structures And Facilities

2.1.1. All live fire training evolutions during NYS OFPC training shall be conducted at designated fire department, fire service organization, town, city, village, county or state training facilities

2.1.2. Live Fire Training Structures shall be engineer designed, constructed and maintained for such use.

2.1.2.1. Such structures shall be of non-combustible or fire resistive construction as those terms are defined in the Building Code of New York State designed for live fire training.

2.1.3. The structure shall be able to be vented quickly in the event of an emergency.

2.1.4. The structure shall have a minimum of two emergency escape routes from the building in the event of an emergency.

2.1.5. Structures shall be inspected visually for damage prior to live fire training evolutions.

2.1.6. The live fire checklist (Attachment #1), shall be completed for these exercises.

2.1.7. Prior to conducting any live fire training, all participants shall have a knowledge of and familiarity with the structure being used for the evolution.

2.1.8. Use of the following structures and equipment shall be **PROHIBITED** for the purpose of interior structural live fire training evolutions.

2.1.8.1. Vehicles shall not be permitted to simulate a structure.

2.1.8.1.1. Vehicles defined as structures and meeting the requirements of 2.1.2 shall be a commercially manufactured structural mobile training unit/trailer.

2.1.8.2. Acquired Structures.

2.1.8.3. Flashover simulators.

2.2. Fuel Materials

2.2.1. Class A materials shall be limited to untreated wood and wood products, hay, excelsior and straw.

2.2.2. Fire sets shall be developed to adhere to the following restrictions;

2.2.2.1. **Introductory Fire Set**

2.2.2.1.1. Limited to a maximum of 160 lbs. of Class A materials as describe in 2.2.1, for example two 40" x 48" pallets (average weight 50 lbs. each) and one and one-half bale of hay (average weight of 40 lbs. per bale).

2.2.2.1.2. The burn room must have a minimum interior dimension of 144 square feet. (minimum 7'6" height)

2.2.2.1.3. Shall be utilized for all live fire training in live fire training structures per building manufacturers specifications, but not to exceed engineered designed features (precluding counties previous policies).

2.2.2.1.4. The introductory set shall be utilized for all live fire training evolutions, unless approved otherwise in the curriculum.

2.2.2.2. **Intermediate Fire Set**

2.2.2.2.1. Limited to a maximum of 185lbs of Class A materials as described in 2.2.1, for example two 40" x 48" pallets (average weight 50lbs each), one and one-half bale of hay (average weight of 40lbs per bale) and one-half sheet of 7/16" x 4 x 8 OSB (average weight of 50lbs per sheet).

2.2.2.2.2. The burn room must have a minimum interior dimension of 144 square feet.

2.2.2.2.3. The burn room shall be constructed with protected concrete to be eligible to use this fire set.

2.2.2.2.4. Thermocouples shall be provided in burn rooms that utilize this fire set and the temperature must be monitored so that the temperatures do not exceed the maximum design criteria for the burn room.

2.2.2.2.5. Appropriate documentation indicating that the design and construction has been verified shall be provided to OFPC prior to utilizing this fire set.

2.2.2.3. **Advanced Fire Set**

2.2.2.3.1. Limited to a maximum of 235 lbs. of Class A materials as described in 2.2.1, for example two 40" x 48" pallets (average weight 50 lbs. each), one and one-half bale of hay (average weight of 40 lbs. per bale) and one and one-half sheet of 7/16" x 4 x 8 OSB (average weight of 50lbs per sheet).

2.2.2.3.2. The burn room must have a minimum interior dimension of 144 square feet.

2.2.2.3.3. The burn room shall be constructed with protected concrete to be eligible to use this fire set.

2.2.2.3.4. Thermocouples shall be provided in burn rooms that utilize this fire set and the temperature must be monitored so that the temperatures do not exceed the maximum design criteria for the burn room.

2.2.2.3.5. Appropriate documentation indicating that the design and construction has been verified shall be provided to OFPC prior to utilizing this fire set.

2.3. Safety

2.3.1. An evacuation plan shall be established and an evacuation signal shall be demonstrated to all participants prior to an interior live fire training evolution.

2.3.2. A backup team, Firefighter Assist and Search Team or a Rapid Intervention Team consisting of a minimum of four firefighters shall stand by with rescue equipment. These firefighters shall not be students in the course and two members shall staff the safety line; however, at least two firefighters shall be available for rescue.

2.3.2.1. A means of communications shall be established between this team and both the lead state fire instructor and the safety officer. Communications may be direct, face to face, hand signals or radio.

2.3.3. Excess Class A materials may not be stored in the burn room or any exposure room while conducting live fire training evolutions.

2.3.4. Safety hose lines shall be in place, charged and have the pattern and flow checked prior to the fire being ignited.

2.3.5. Upon stopping an evolution due to an accident or safety concern, the Safety Officer shall confer with the lead Instructor and corrective action shall be taken prior to an evolution starting again.

2.3.6. Whenever an evolution is stopped due to an accident or safety concern, a personal accountability report (PAR) shall be conducted immediately for all personnel operating on scene.

2.4. Instructors

2.4.1. The number of instructors and instructor assignments shall be detailed in the curriculum unit being delivered.

2.4.1.1. The following positions shall be staffed at a minimum;

2.4.1.1.1. Incident Commander.

2.4.1.1.2. Attack Officer.

2.4.1.1.3. Back-up/Ignition Officer.

2.4.1.1.4. Safety Officer.

2.4.2. The ignition officer, accompanied by fire control team member(s), with a charged hose line, shall ignite all fires as directed by the lead instructor and approved by the Safety Officer.

2.4.2.1. The ignition team shall have a charged hose line capable of flowing at least 95 gpm accompanying them while they are in the process of igniting the fire.

2.4.2.2. Prior to entering the burn area for the purpose of igniting the fire, the Ignition Officer shall obtain permission to proceed from the lead instructor and the safety officer.

2.4.2.3. Upon successful ignition, the ignition officer and additional personnel shall notify the Incident Commander that the fire has been ignited, exit the burn area and report to the lead instructor that the ignition crew has exited the burn area. **NO PERSONNEL SHALL REMAIN IN THE BURN ROOM.**

2.4.2.4. The safety officer shall log the time the ignition team entered and exited the structure.

2.4.3. The lead instructor shall ensure that the back-up/FAST/RIT is prepared to act while the ignition team is in the process of igniting the fire.

2.5. Sequential Live Fire Burn Evolutions

2.5.1. A burn sequence matrix chart shall be developed for the burn rooms in a live fire training structure.

2.5.2. The matrix shall include the total number of sequential evolutions that shall be allowed in each burn room per day.

2.5.3. The matrix shall include the maximum fuel loading per sequential burn for each burn room.

3. Section 3. Exterior Fire Suppression Training Requirements

3.1. Structures and facilities

3.1.1. Exterior props shall be inspected visually for damage prior to live fire training evolutions.

3.1.2. The live fire checklist shall be completed for these exercises. (Attachment # 7)

3.1.3. Prior to conducting any live fire training, all participants shall have a knowledge of and familiarity with the prop or props being used for the evolution.

3.2. Fuel Materials

3.2.1. The appropriate type and quantity of Fuel materials shall be used to create the desired fire size.

3.2.2. Props used for outside live fire training shall be designed specifically for the evolution to be performed.

3.2.3. Vehicles used as props for live fire training shall have all fluid reservoirs, fuel tank, batteries, shock absorbers, drive shafts, air bags and igniters, and any other gas filled containers removed, vented or drained prior to any ignition. The oil pan, transmission and differential drain plugs should be removed and all fluids should be drained and properly disposed of.

3.2.4. All possible sources of ignition, other than those that are under the direct supervision of the ignition officer, shall be removed from the operations area.

3.3. Instructors

3.3.1. The Ignition Officer, accompanied by fire control team with a charged hose line capable of flowing at least 95 gpm, shall ignite all fires as directed by the Lead instructor.

3.3.2. Prior to entering the burn area for the purpose of igniting the fire, the Ignition Officer shall obtain permission to proceed from the instructor acting as IC and the safety officer.

3.3.3. Upon successful ignition, the Ignition Officer and additional personnel shall exit the burn area and report to the lead instructor that the Ignition Crew has exited the burn area. **NO PERSONNEL SHALL REMAIN IN THE BURN AREA.**

3.3.3.1. The burn area shall be designated as the central point and extending in a 50 foot radius of the prop.

3.3.4. The instructor acting as Incident Commander shall ensure that the back-up team is prepared to act while the ignition team is in the process of igniting the fire.

4. Section 4. Portable Fire Extinguisher Training (Firefighter Training)

4.1. Student Prerequisites

4.1.1. Students attending fire training courses, shall have completed the following training objectives prior to the live fire training:

4.1.1.1. Fire Behavior.

4.1.1.2. Personal Protective Equipment.

4.2. Structures and facilities

4.2.1. Live fire evolutions shall be conducted outdoors, in a well-ventilated area.

4.2.1.1. Shall not be within 50 feet of any exposure.

4.2.2. Fire Extinguisher props shall be inspected visually for damage prior to live fire training evolutions.

4.2.3. A detailed weather report shall be obtained for the National Weather Service site closest to the training center prior to the live fire training evolution taking place.

4.2.3.1. Contact the National Weather Service at www.weather.gov to obtain the information.

4.2.4. Prior to conducting actual live fire training evolutions, a pre-burn briefing session shall be conducted for all participants.

4.2.5. All facets of each evolution to be conducted shall be discussed and assignments shall be made for all crews participating in the training session.

4.2.6. The live fire checklist for fire extinguishers shall be completed for all courses. (Attachment #8)

4.2.7. Prior to conducting any live fire training, all participants shall have a knowledge of and familiarity with the prop or props being used for the evolution.

4.2.8. All possible sources of ignition, other than those that are under the direct supervision of the ignition officer, shall be removed from the operations area.

4.3. Fuel Materials

4.3.1. The appropriate type and quantity of Fuel materials shall be used to create the desired fire size.

4.3.1.1. One gallon or less of a combustible liquid shall be permitted in conjunction with fire extinguisher training during fire training courses.

4.3.1.2. Liquefied petroleum gas used in props specifically designed for such use, following the manufacturer's instructions.

4.3.1.2.1. During the entire time the prop is in use, the remote shutoff shall be continuously attended by safety personnel trained in its operation.

4.3.1.3. Typical Class A materials shall be permitted for use, at the rate of 1 pound per square foot up to a maximum of 2 pounds.

4.4. Safety

4.4.1. An evacuation plan shall be established, including an evacuation signal to be demonstrated to all participants in a Fire Extinguisher live fire training evolution.

4.4.2. All participants in the fire training courses shall be equipped with full protective clothing.

4.4.3. The Safety Officer shall be equipped with an extinguisher the same size or larger than the one used by the student(s).

4.5. Instructors

4.5.1. Two instructors are required for all fire extinguisher live fire training evolutions.

4.5.1.1. One instructor to serve as the trainer.

4.5.1.2. One instructor as the safety officer.

5. Section 5. Public Fire Safety Training Prevention and Education Demonstration Requirements

5.1. Participant Prerequisites

5.1.1. Participants shall have received detailed instructions as to their participation, in accordance with the training or lesson plan.

5.2. Structures and facilities

5.2.1. Live fire evolutions shall be conducted outdoors, in a well-ventilated area.

5.2.1.1. Shall not be within 50 feet of any exposure.

5.2.2. Props shall be inspected visually for damage prior to live fire training evolutions.

5.2.3. Prior to conducting actual live fire training evolutions, a pre-burn briefing session shall be conducted for all participants (attachment #6).

5.2.4. All facets of each evolution to be conducted shall be discussed and assignments shall be made for all crews participating in the training session.

5.2.5. Prior to conducting any live fire training, all participants shall have a knowledge of and familiarity with the prop or props being used for the evolution. All possible sources of ignition, other than those that are under the direct supervision of the ignition officer, shall be removed from the operations area.

5.3. Fuel Materials

5.3.1. The appropriate type and quantity of Fuel materials shall be used to create the desired fire size.

5.3.1.1. The use of liquefied petroleum gas used in props specifically designed for such use shall be permitted, following the manufacturer's instructions.

5.3.1.1.1. During the entire time the prop is in use, the remote shutoff shall be continuously attended by safety personnel trained in its operation.

5.3.1.2. Typical Class A materials shall be permitted for use.

5.4. Safety

5.4.1. An evacuation plan and assembly area shall be established.

5.4.2. Participants in the live fire training shall be equipped with full protective clothing if they are required to work in the IDLH atmosphere.

5.5. Instructors

5.5.1. Instructors shall be assigned as required by the training or lesson plan.

6. Section 6. Fire/Arson Investigation Training

6.1. Participant Prerequisites

6.1.1. Participants shall have received detailed instructions as to their participation, in accordance with the training or lesson plan.

6.2. Structures and Facilities

6.2.1. Live fire evolutions shall be conducted in structures designed for such use or outdoors, in a well-ventilated area.

6.2.1.1. Shall not be within 50 feet of any exposure.

6.2.2. Structures and props shall be inspected visually for damage prior to live fire training evolutions.

6.2.3. Prior to conducting actual live fire training evolutions, a pre-burn briefing session shall be conducted for all participants.

6.2.4. All facets of each evolution to be conducted shall be discussed and assignments shall be made for all crews participating in the training session.

6.2.5. Prior to conducting any live fire, all participants shall have a knowledge of and familiarity with the prop or props being used for the evolution.

6.2.6. All possible sources of ignition, other than those that are under the direct supervision of the ignition officer, shall be removed from the operations area.

6.3. Fuel Materials

6.3.1. Fuel materials shall be used only in the amounts necessary to create the desired learning objective:

6.3.1.1. The use of small quantities of ignitable liquids shall be permitted.

6.3.1.2. Fires used for Fire/Arson investigation training which uses ignitable liquids shall not be used as interior structural firefighter training.

6.4. Safety

6.4.1. An evacuation plan shall be established, including an evacuation signal to be demonstrated to all participants.

6.4.2. Participants involved in act of suppression should be equipped with Full Protective clothing.

6.4.3. A Safety Officer shall be designated for the suppression evolution and shall be responsible for the safety of all participants.

6.5. Instructors

6.5.1. Instructors shall be assigned as required by the training or lesson plan.

Authorized by:

Bryant Stevens
State Fire Administrator

Attachment #1 Live Fire Policy

Office of Fire Prevention and Control Live Fire Training Policy

Public Fire Safety Training, Prevention & Education Demonstrations

Course Name _____ **Course Number**_____

Unit Number _____ **Date** _____

Location of Live Fire_____

***Lead Instructor**_____ **Instructor Number**_____

***Additional Instructor**_____ **Instructor Number**_____

***Additional Instructor**_____ **Instructor Number**_____

***Additional Instructor**_____ **Instructor Number**_____

***Indicates the MANDATORY positions that MUST be staffed.**

LIVE BURN SHALL NOT BE CONDUCTED UNLESS ALL MANDATORY POSITIONS ARE STAFFED.

(Attachment #2)

[____] **1) Lead instructor has reviewed the Office of Fire Prevention and Control Live Fire Training Policy immediately prior to planning and conducting the exercise(s).**

[____] **2) Safety instructor has reviewed the Office of Fire Prevention and Control Live Fire Training Policy immediately prior to planning and conducting the exercise.**

[____] **3) Support Instructors have reviewed the Office of Fire Prevention and Control Live Fire Training Policy immediately prior to planning and conducting the exercise.**

Notification and Permits:

[____] **a.) Necessary authorization to use facility for live fire evolutions has been obtained in accordance with local procedures. A copy of this authorization is on file with _____. (attach copy if applicable)**

[____] **b.) Necessary burn permits have been obtained. A copy of this authorization is on file with _____. (attach copy if applicable)**

[____] 4.) Visible safety inspection prior to burn is required for any deficiencies and reported to the AHJ if necessary. (Attachment #7)

Pre-burn Planning:

[____] 1) Establish location of command post

[____] 2) Establish location of rehabilitation center

[____] 3) Establish position of all apparatus

[____] 4) Establish positions of all hose lines (including backup lines)

[____] 5) Establish location of emergency evacuation assembly area

[____] 6) Determine water supply meeting required minimum water supply

- [_____] a) Minimum Water Supply as calculated
- [____] b) Hydrant
- [____] c) Water Tender (Tanker)
- [____] d) Drafting pond
- [____] e) Booster Tank

[____]7) Obtain weather report

[____] 8) Establish operations area and mark perimeter

[____] 9) Establish communications with operations area and with dispatch center, communication may be direct, face to face, by hand signals, telephone or radio

Pre-burn Procedures:

[____] 1) All participants briefed on the following:

- [____] a) Structure layout
- [____] b) Crew and instructor assignments
- [____] c) Safety rules and accountability procedures
  - safety briefing about burn
  - safety rules to follow
  - accountability procedures
- [____] d) Evacuation plan developed
- [____] e) <u>Demonstrate evacuation signal</u>
- [____] f) <u>Walk through structure with students</u>

[____] 2) Hose lines

- [____] a) Backup line is of adequate flow and supplied from a separate source as primary lines
- [____] b) Lines charged and flow tested
- [____] c) Supervised by qualified personnel
- [____] d) Adequate number of personnel and proper equipment

[____] 3) Necessary tools and equipment positioned

[____] 4) Personnel check

[____] a) DOL/PESH compliant full protective clothing

[____] b) NIOSH approved self-contained breathing apparatus

[____] c) All personal protective equipment donned and working properly

[____] 5) The fire setup is proper for the intended evolution

[____] a) The instructors know what material is being burned

[____] b) The fuel load does not exceed specifications of the Live Fire Training Policy

[____] c) No flammable liquids <u>or combustible liquids are used in interior fires</u>

[____] d) <u>Combustible liquids are only used in exterior fires</u>

[____] e) <u>The fuel load configuration does not restrict safe egress for the participants</u>

[____] 6) EMS status

[____] a) Instructor has verified that adequate EMS is available

[____] b) Instructor has outlined the emergency medical procedures to be followed in the event they are needed

[____] 7) Rehab area

[____] a) EMS personnel are assigned to monitor participants

[____] b) Fluids are provided (minimum 32 oz. water per participant per hour).

[____] 8) Back-up Team or FAST/RIT

[____] a) Minimum 4 (may NOT be students)

[____] b) *Trained to FF I or Equivalent and Certified Interior by the Local FD

[____] c) Equipment is staged

[____] d) Means of communications is established between Back-up team and all State fire instructors

[____] 8) Fire Control Team Established

[____] a) Minimum 2 (may NOT be students)

[____] b) *Trained to FF I or Equivalent and Certified Interior by the Local FD

Post-burn Procedures:

[____] 1) All personnel accounted for

[____] 2) Training critique conducted

[____] 3) Documentation of injuries incurred and treatment rendered

Instructor Signature:_____ Date_____

Attachment #2

(Revised November 2014)

NEW YORK STATE

OFFICE OF FIRE PREVENTION & CONTROL

LIVE FIRE NOTIFICATION

FAX

TO: OFPC FIRE OPERATIONS AND TRAINING BRANCH (518) 474-3240

FROM: _____

DATE: _____

LEAD INSTRUCTOR:

NAME:_____ SFI NUMBER:_____

SAFETY INSTRUCTOR

NAME:_____ SFI ( ) CFI ( ) MTO ( ) MFI ( )

THIRD INSTRUCTOR

NAME:_____ SFI ( ) CFI ( ) MTO ( ) MFI ( )

ADDITIONAL INSTRUCTOR

NAME:_____ SFI ( ) CFI ( ) MTO ( ) MFI ( )

COURSE: NAME:_____ COURSE NUMBER ____-_____

LESSON NAME & NUMBER: _____

COUNTY BEING TAUGHT IN: _____

DATE OF LIVE FIRE:_____ TIME (24 HR):_____

LIVE FIRE LOCATION:_____

NAME OF FACILITY:_____

STREET ADDRESS:_____

NOTE: DUE TO OFPC AT LEAST <u>TWO WEEKS</u> PRIOR TO LIVE FIRE TRAINING.

Attachment # 3

(Revised November 2014)
Ignition Activity Log

Course Name: _____ Course No.: _____

Live Burn Evolution # 1

***Ignition Officer**_____ **Instructor Number**_____

****Fire Control Team Member**_____

FDID or Instructor Number _____ **Time In** _____ **Time Out**_____

Live Burn Evolution # 2

***Ignition Officer**_____ **Instructor Number**_____

****Fire Control Team Member**_____

FDID or Instructor Number _____ **Time In** _____ **Time Out**_____

Live Burn Evolution # 3

***Ignition Officer**_____ **Instructor Number**_____

****Fire Control Team Member**_____

FDID or Instructor Number _____ **Time In** _____ **Time Out**_____

Live Burn Evolution # 4

***Ignition Officer**_____ **Instructor Number**_____

****Fire Control Team Member**_____

FDID or Instructor Number _____ **Time In** _____ **Time Out**_____

Live Burn Evolution # 5

***Ignition Officer**_____ **Instructor Number**_____

****Fire Control Team Member**_____

FDID or Instructor Number _____ **Time In** _____ **Time Out**_____

- Must be staffed by a certified SFI/CFI/MTO/MFI ONLY

** - May be staffed by local staff/SFI/CFI/MTO/MFI

Attachment # 4

Crew Assignment

Live Burn Evolution _____

Time Evolution Started _____ Completed_____

Attack Crew

Attack Engine Details

Department _____ Unit ID_____

Pump Capacity _____ Tank Size _____

Water Source _____

Attack Line Size _____ Hose Length _____ Nozzle Type _____

Lead Instructor _____ Instructor Number _____

Nozzle Operator _____ Student ID _____

Back-up # 1 _____ Student ID _____

Back-up # 2 _____ Student ID _____

Back-up # 3 _____ Student ID _____

Back-up # 4 _____ Student ID _____

Back-up Line

Back-up Engine Details

Department _____ Unit ID_____

Pump Capacity _____ Tank Size _____

Water Source _____

Back-up Line Size _____ Hose Length _____ Nozzle Type _____

Instructor _____ Instructor Number _____

Nozzle Operator _____ Student ID _____

Back-up # 1 _____ Student ID _____

Back-up # 2 _____ Student ID _____

Back-up # 3 _____ Student ID _____

Back-up # 4 _____ Student ID _____

Safety Crew/FAST/RIT/Fire Control Team

Crew Type _____

Safety Instructor _____ Instructor Number_____

Firefighter # 1_____ FDID Number _____

Firefighter # 2 _____ FDID Number _____

Firefighter # 3 _____ FDID Number _____

Firefighter # 4 _____ FDID Number _____

Time May-Day Called/Problem Recognized _____

Time Team Deployed _____ Time Situation Controlled _____

[_____] Rescue [_____] Recovery [_____] Cancelled/Controlled

Contact the New York State Office of Fire Prevention and Control, Fire Operations and Training Branch @ (518)474-6746 any time a Safety Crew/FAST/RIT is deployed for an actual incident during a Live Fire Training Evolution, contact shall be immediately upon resolution of the situation and prior to the conclusion of the lesson. All additional Live Fire Evolutions shall be suspended until the Fire Operations and Training Branch is consulted and the situation is investigated. The scene shall be secured as directed by the Fire Operations and Training Branch to aid in the investigation.

NYS DIVISION OF HOMELAND SECURITY AND EMERGENCY SERVICES

OFFICE OF FIRE PREVENTION & CONTROL

STANDARD OPERATING PROCEDURES

Index – Administrative Procedures

Reference# AP-007

Subject – Severe Weather/Heat Stress Policy

Effective Date- August 16, 2013

Revised Date-

1.0 Purpose

1.1 The purpose of this policy is to provide guidance for instructors conducting training in hot weather, to provide for the safety of students and instructors.

2.0 Applicability

2.1 This Policy shall be applicable to all training courses delivered by Fire Protection Specialists, State Fire Instructors or others authorized to conduct training sponsored by or on behalf of the Office of Fire Prevention and Control.

3.0 Procedure

3.1 Review course to determine if skills completion are a component of the course if so:

3.2 Obtain a weather report, including heat index for the time period, this shall be done as close as possible.

3.2.1 National Weather Service web address: www.weather.gov

3.2.2 Find the "tabular forecast" for the training location

3.2.3 Ensure the "Heat Index" check box is checked

3.2.4 Document the Tabular Forecast for the training hours

3. 3 Review the data to evaluate conditions anticipated during the training period, monitor actual conditions to determine accuracy and adjust accordingly

3.4 Determine the Effective Heat Stress Index

3.4.1 Determine the Heat Index then, if applicable:

3.4.2 Add 10 degrees Fahrenheit for skills requiring the use of structural firefighter personal protective clothing or fully encapsulating chemical protective clothing then, if applicable,

3.4.3 Add 10 degrees Fahrenheit for skills conducted in direct sunlight

3.4.4 If skills are conducted using structural firefighter or fully encapsulating chemical protective clothing and in direct sunlight add 3.3.2 and 3.3.3 together with the heat index to determine the total Effective Heat Stress Index

3.4.4.1 Example: Heat Index of 90 + 10 for PPE + 10 for direct sunlight = Total Effective Heat Stress Index of 110.

3.4.5 Effective Heat Stress Index Injury Threat Analysis

Effective Heat Stress Index ° F	**Threat Category**	**Injury Threat**
Below 60	None	Little to no danger under normal circumstances
60 to 79	Low	Fatigue possible
80 to 89	Elevated	Fatigue possible if exposure is prolonged and there is physical activity
90 to 104	Moderate	Heat cramps and heat exhaustion possible if exposure is prolonged and there is physical activity
105 to 129	High	Heat cramps and heat exhaustion likely and heat stroke possible if exposure is prolonged and there is physical activity
130 and Above	Extreme	HEAT STROKE IMMENIENT

3.5 Instructors shall ensure the following actions are taken

Effective Heat Stress Index ° F	**Work/Rest Ratio** (Minutes Work/Minutes Rest)	**Fluid Intake per Hour**	**Special Actions**
60 to 79	40/20	24 Ounces	None
80 to 89	30/30	32 Ounces	None
90 to 104	30/30	32 Ounces	Active Cooling if available
105 to 129	20/40	32 Ounces	All Live Fire Evolutions and evolutions requiring Fully Encapsulated Chemical Protective Clothing are Cancelled
130 and Above	No Work Allowed	Cancelled	All physically exerting skills evolutions are Cancelled

3.6 Severe Weather

3.6.1 Caution shall be exercised when a severe weather watch has been issued for the training area.

3.6.1.1 Identify areas of safe refuge in the event of severe weather

3.6.2 Upon issuance of a Severe Weather Warning or obvious evidence of severe weather for the training area when evolutions will be conducted outdoors:

3.6.2.1 Suspend outdoor activities;

3.6.2.2 Move students to a safe, indoor location;

3.6.2.3 Activities may resume, once the storm has passed and thunder is no longer heard for a period of thirty minutes

3.6.2.3.1 Should lightening detection be available, activities may continue until a strike is identified ten miles away and may resume once lightening is no longer occurring within ten miles upon passage of the storm

3.6.2.3.2 Should lightning be occurring, but a severe weather warning not be issued, follow sections 3.6.2.1 through 3.6.2.3 of this policy

OFFICE OF
FIRE PREVENTION & CONTROL

Pre Burn Checklist

Emergency Response Ethanol Incidents/ Kidde O-100 Trainer

Course Location:_____

Notifications

- ☐ Notification made to appropriate dispatch office of date, time and location of burn
- ☐ Written evidence of prerequisite training and Training Authorization Letter obtained from participating students

Preburn Planning

- ☐ Preburn plan made, showing the following:
  - Site Plan
  - Position of apparatus
  - Position of all hoses including backup line(s)
  - Location of emergency escape routes, ems assembly area
- ☐ Water supply determined
- ☐ Separate water sources established for attack and backup hoses
- ☐ Weather report obtained
- ☐ Parking areas designated and marked
- ☐ Operations area established and perimeter marked
- ☐ Communications established and frequencies designated

Site Preparation

- ☐ Appropriate size area acquired and inspected for hazards/obstructions
- ☐ Power supply
- ☐ Exposures eliminated, trees brush and vegetation removed

Preburn Procedures

- ☐ Participant briefing:
  - Crew and instructor assignments
  - Safety rules
  - Emergency signals
- ☐ Test pilots, burn pans and emergency shutoffs
- ☐ Hose lines checked
  - Charged and test flowed
  - Supervised
  - Adequate personnel-nozzle, mule and kinker(s)
- ☐ Tools and equipment positioned- 2 eductors, 2 foam nozzles, 3 fog nozzles; foam containers positioned
- ☐ Participants checked
  - PPE check
  - SCBA check
  - Equipment properly donned

Postburn Procedures

- ☐ Personnel accounted for
- ☐ Inspect trailer
- ☐ Critique
- ☐ Record activities

Site Plan

Lead Instructor:

Print_____

Sign_____

Date and time:_____

OFPC Instructor List:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

NYS OFPC LIVE FIRE TRAINING FACILITY INSPECTION REPORT

Attachment #7

Region: _____ Facility: _____

Date: _____

Inspector: _____

Legend: √= OK N=Noteworthy D+ Requires Attention

GENERAL

a) ____ Floors, walls, stairs, and other structural components appear capable of withstanding the weight of the contents, participants and accumulated water.

EXTERIOR

b) ____ Perimeter Lighting
c) ____ General appearance
d) ____ Exterior of Structure
e) ____ Windows
f) ____ Doors
g) ____ Railings
h) ____ Stairs

INTERIOR

i) ____ Housekeeping (swept clean, no fuel storage on fire floor)
j) ____ Windows/shutters
k) ____ Functional doors
l) ____ Lined ceilings/walls (crazing, cracking, delamination, metal mesh visible)
m) ____ High temperature linings (loose/damaged tile, exposed bolts)
n) ____ Burn racks
o) ____ Fuel inventory/storage

OTHER

p) ____ _____
q) ____ _____

Documentation of Issues

Item #	Description

Note: If damage is present in approved burn rooms, utilize the form on the reverse side to specify the details of damage.

Describe in detail of any damage below and attach photos.

Floor: _____ **Room:** _____

Wall/Ceiling: _____ **Area Involved (ft/in.):**_____

Wall/Ceiling:_____

Damage description: _____

Distance in Feet of the entire burn room

1	2	3	4	5	6	7	8	9	10
2									
3									
4									
5									
6									
7									
8									
9									
10									

Operating Portable Fire Extinguishers

NFPA 1001 [2013] - 5.3.16

DIVISION OF HOMELAND SECURITY & EMERGENCY SERVICES

NYS Skill Sheet 7-I-1, 7-I-2, 7-I-3

Candidate's Name	Date
Evaluator's Name	Evaluator's Signature

The candidate, given a complete set of PPE, shall choose the correct type of fire extinguisher when given a specific fire situation; and while wearing complete PPE, shall demonstrate proper fire extinguishment techniques in accordance with the IFSTA Essentials of Fire Fighting and Fire Department Operations, 6TH ed.

Time limit for this station is 7 minutes.

Criteria:	Pass	Fail
Wears complete PPE		
Identifies appropriate class of fire "A", "B", "C", "D", "K"		
Correct fire extinguisher/agent is selected		
Verbalizes disrupting electrical current prior to extinguishing (class "C" fires only)		
Assures operation prior to using (fully charged and test fire extinguisher)		
Uses P-A-S-S method fore extinguisher use		
Extinguishes fire (proper technique and faces fire when retreating)		

Evaluator Notes

NEW YORK STATE DIVISION OF HOMELAND SECURITY AND EMERGENCY SERVICES
OFFICE OF FIRE PREVENTION AND CONTROL

STUDENT INJURY/ILLNESS REPORT FORM

REPORT INJURY/ILLNESS TO OFPC WITHIN

- **24 HOURS BY TELEPHONE (518) 474-6746**
- **24 HOURS BY EMAIL OFPC.Training@dhses.ny.gov**
- **48 HOURS BY MAIL OR FAX (518) 474-3240**

PLEASE PRINT

ATTENTION FIRE OPERATIONS AND TRAINING BRANCH

STUDENT NAME:_____ DOB:_____

FIRE DEPT./AGENCY:_____ FDID:_____

STUDENT ID #:_____

DATE OF INJURY/ILLNESS:_____

TIME OF INJURY:_____ ☐ AM ☐ PM

LOCATION:_____

COURSE NAME:_____

COURSE #:_____ UNIT NO.:_____

LESSON NAME:_____ SKILLS UNIT: ☐ YES ☐ NO

NATURE OF INJURY/ILLNESS_____

DESCRIPTION OF HOW INJURY/ILLNESS OCCURRED:

WAS PROTECTIVE EQUIPMENT RELATED TO THE INJURY/ILLNESS: ☐ YES ☐ NO

IF YES, GIVE DETAILS:

WAS TREATMENT PROVIDED ON SCENE: ☐ YES ☐ NO

NAME OF PROVIDER:_____

DESCRIBE TREATMENT:

WAS STUDENT TRANSPORTED TO THE HOSPITAL: ☐ YES ☐ NO **(IF YES CONTACT OFPC IMMEDIATELY @ (518 474-6746)**

NAME OF HOSPITAL:_____

TRANSPORTED BY:_____

CHECK HERE IF NARRATIVE IS PROVIDED ON ADDITIONAL SHEETS. TOTAL INCLUDING THIS SHEET _____

REPORT COMPLETED BY:_____

INSTRUCTOR NAME:_____ DATE OF REPORT:_____

CONTACT NO.:_____ EMAIL:_____

SIGNATURE:_____ INSTRUCTOR NO.:_____

TRAINING CONDUCTED FOR: ☐ **FOTB (OUTREACH)** ☐ **FOTB (ACADEMY)** ☐ **SOB** ☐ **IIB** ☐ **OTHER** _____