

**PyroLance LLC.  
STANDARD OPERATING PROCEDURE**

<b>Section:</b>	Demo/Training	<b>SOP:</b>	1.00
<b>Subject:</b>	Live Fire Training Exercises	<b>Executed:</b>	October 24, 2012
		<b>Revised:</b>	
<b>Approved:</b>			
Casparus Seyffert VP Operations			

Table of Contents

Chapter 1 ..... Scope

Chapter 2 ..... Purpose

Chapter 3 ..... Definitions

Chapter 4 ..... Burn Building Fuel

Chapter 5 ..... Staff

Chapter 6 ..... Safety

Chapter 7 ..... Safety Officer

Appendix A ..... Assigned Instructor Briefing Checklist

Appendix B ..... Student [Participants] Registration Record

Appendix C ..... Demonstration Operational Checklist

## **Chapter 1 Scope**

- 1-1 The purpose of these Standard Operating Procedures (SOPs) are to minimize the risk to all participants, promote good housekeeping, and ensure the maximum life of these facilities.

## **Chapter 2 Purpose**

- 1-1 The SOPs apply to all Fire Coordinator Staff, EMO staff, Fire Departments, Police Agencies, Military Personnel, instructors, visitors, and any others who may have any association or contact with our Training Facilities.

## **Chapter 3 Definitions**

- 3-1 Participant. – Any person on the grounds of the facility whether they will be actively participating or not.
- 3-2 Clean-up - The removal and proper disposal of all items brought to or used in the training evolution, including debris left from the use of paintball guns.
- 3-3 Instructor [s] – Individual[s] deemed responsible by PyroLance LLC.
- 3-4 Ignition Officer- Person responsible for ignition of fires within the burn rooms.
- 3-5 Safety Officer - An individual appointed by the requesting agency to ensure training ground safety.
- 3-6 Control Officer – An individual assigned and responsible for monitoring the use of the facility.
- 3-7 Student - Any person who is present at the training facility for the purpose of receiving training.
- 3-8 Training Grounds. All areas in and around either training facility including but not limited to the burn bldg/tower, rehab area
- 3-9 Staff – Instructor[s], safety officers, control officers, ignition officers

## **Chapter 4 Burn Building Fuel**

- 4-1 Class A fuels are the only fuels permitted to be used in the burn rooms.
  - 4-1.1 Examples include wooden pallets, excelsior, paper, cardboard, straw, hay and other ordinary combustibles. No more than 10 lbs of class A Upholstered or stuffed furniture cushions may be used in conjunction with other materials as long as maximum temperature controls are maintained.
  - 4-1.2 Pressure treated wood, rubber, and plastic materials [and straw or hay treated with pesticides or harmful chemicals] are prohibited in the burn building.
  - 4-1.3 Fuels that may be contaminated by toxic or unknown materials shall not be used.
- 4-2 Class B fuels, flammable or combustible liquids, shall be prohibited in the burn building.
- 4-3 The quantity of fuel used shall be limited to the amount necessary to meet the objective. The assigned instructor(s) dictate the fuel load.
  - 4-3.1 No more than 150 lbs. of class A fuel may be used in the burn room for each burn. This limits the burn room to a maximum of six pallets or four pallets with straw, hay, excelsior or cushion combination.
- 4-4 The training exercise shall cease if the assigned instructor(s), safety officer or control officer determines that the combustible nature of the environment represents a potential hazard. The exercise shall continue only when the appropriate actions have been taken to eliminate the hazard.
- 4-5 Live Fire within the Training Burn Building shall be confined to the inside of the Burn Building.
- 4-6 Instructor[s], Safety Officer, Control Officer and Ignition officer must be designated by the PyroLance LLC. Staff.
- 4-7 The local FD Dispatch must be contacted and notified of time, location and contact person prior to any Live Burn activity.
- 4-8 The ignition of fuel will be conducted using a fire log. Class B liquids are prohibited for fuel ignition in the burn facility.

## **Chapter 5 Staff**

- 5-1 No agency will be permitted to use the facilities without an identified assigned instructor on site.
- 5-2 Safety shall be the primary responsibility of assigned staff at all times.
- 5-3 The assigned staff shall identify a recognized departmental accountability system.
- 5-4 Everyone entering the training grounds during live fire training shall be in full personal protective clothing.
- 5-5 The assigned staff shall have the authority and responsibility of keeping the training ground risk-free. The assigned instructor(s) shall verify that a Safety Officer or Officers have been selected prior to briefing the students.
- 5-5.1 All Live Burn Demo/Training will be scheduled with VP of Operations to allow for all documentation and staffing to be in place prior to Live Burn day.
- 5-5.2 Use of the facilities is scheduled and managed through the PyroLance LLC. VP of Operations. Instructors will receive full Live Burn package from PyroLance LLC. Prior to Live Burn day.
- 5-7 Problems with the facility or users of the facility will result in termination of all activities. Unless the situation can be corrected immediately, activities are not to resume for that period of time. Problems identified by the assigned instructor(s) are to be reported in writing to the PyroLance LLC. VP of Operations within twenty-four (24) hours of occurrence.
- 5-9 The assigned Instructor(s) will ensure that all facilities are secured and all equipment cleaned and stowed away. All trash, garbage and spent material will be picked up and disposed appropriately.
- 5-10 PyroLance LLC. requires that each user be briefed concerning this SOP before using either facility.

## **Chapter 6 Live Fire Training Safety**

- 6-1 The facility shall be visually inspected for damage by the Safety Officer and assigned instructor(s) prior to any use. Damage will be reported in writing by the assigned instructor(s) to the Fire Coordinator.
- 6-1.1 Facility features and safety devices shall be inspected for damage by the Safety Officer and assigned Instructor(s) prior to any live burns to ensure they operate correctly.

- 6-1.2 Where the burn building damage is severe enough to affect the safety of the participants, training shall not be permitted.
- 6-1.3 A search of the building shall be conducted to ensure that no unauthorized persons, animals, or objects are in the building prior to ignition.
- 6-2 The facility shall be kept in a safe condition between evolutions and in a safe and clean condition before the user leaves the property. Debris hindering the access or egress of firefighters shall be removed before continuing.
- 6-3.1 A Control Officer will be assigned to monitor burn room temperature when any person is to be entering the burn facility and have responsibility and authority to terminate evolution if internal temperature reaches 1,000 degrees f.
- 6-3 A minimum of one secondary hose line shall be provided to ensure adequate protection for the students in the burn building. The water supply for secondary hose lines must have an independent water source. Tank water and hydrant water are considered separate sources.
- 6-4 Prior to live burns, a pre-burn briefing session shall be conducted for all participants by the Instructor[s]. All facets of each evolution to be conducted shall be discussed in the pre-burn briefing, and assignments shall be made for all crews participating in the training session
  - 6-4.1 Prior to live burns, students shall have an understanding of the building layout and features to maximize safety.
- 6-5 Prior to conducting live burns in the burn building, all students [participants] shall be required to have an orientation walk through of the burn building.
- 6-6 Spectators will be restricted to an area outside of the operations area.
  - 6-6.1 The operations area is defined as areas with a hot or warm zone contingent of the type of training taking place.
  - 6-6.2 Spectators observing operations will be required to remain in a designated area.
- 6-7 The Safety Officer, assigned instructor(s) or control officer shall have the authority to intervene and control any aspect of the operation when, in his or her judgment, a potential or real danger, accident or unsafe condition exists.
  - 6-7.1 The Safety Officer and the assigned instructor(s) shall provide for the safety of all persons on the training grounds.

- 6-7.2 The Safety Officer shall not be assigned other duties that will interfere with his or her primary responsibility of safety.
- 6-7.3 The assigned instructor(s) will not substitute for the Safety Officer.
- 6-8 The Instructor[s] shall ensure a student ratio shall be 1 to 5 for both interior and exterior operations. The instructor[s] shall ensure an all-inclusive critique of each evolution is completed.
- 6-9.1 Additional safety officers, as deemed necessary by the Safety Officer or the assigned instructor(s), shall be strategically placed within the burn building to react to any unplanned or threatening situations or conditions.
- 6-10 Facility radio communications shall be restricted to non-dispatch channels. A method of fire ground communications shall be established to enable coordination among the incident commander, the interior and exterior sectors, instructor[s], ignition officer, control officer and the safety officer[s].
- 6-11 The burn building evacuation plan shall be verbally communicated and demonstrated to all involved participants
- 6-11.1 The evacuation plan is a continuous sounding of an air horn. This sounding represents an emergency or perceived emergency and requires that all people exit the drill tower and burn building.
- 6-12 During all Live Burn demo/training sessions an EMT or a minimum of 1 First Aid attendant shall be present during the live burn.
- 6-12.1 The assigned instructor [s] are responsible for proper radio communication to readily call the Fire Dispatcher to request an ambulance or other help, if needed.
- 6-1 2.4 All injuries and illnesses must be reported by the student [participant] to the assigned instructor(s) before leaving the Training Center property. The assigned instructor(s) must complete all necessary injury forms and notify the Fire Coordinator or his/her designee on the day of occurrence. The Chief of the Department from which the student [participant] is associated shall also be notified within 24 hours. If the student is a participant in a state sponsored class, OFPC must also be notified by the lead SFI.
- 6-13 No person(s) will be allowed to play the role of a victim during live fire training.
- 6-14 No one shall enter the burn building without fully operational personal protective equipment including SCBA until the fire is completely extinguished and air is clear.
- 6-15 When air quality has been determined to be safe, the building shall be completely cleaned of debris and rubble and washed out.

- 6-16 Each burn building entrant shall be equipped with personal protective equipment (PPE) that includes SCBA. All students shall be inspected by the Safety Officer prior to entry into the burn building to ensure that the PPE is properly worn and operational.
- 6-17 A rescue team of at least two firefighters shall be stationed outside the facility during any live burn exercise.
- 6-18 The ignition control officer shall wear full protective clothing including SCBA when performing this function. A charged hose line shall accompany the ignition officer when igniting any fire.
- 6-18.2 The decision to ignite the fire the training fire shall be made by the Lead Instructor.
- 6-18.3 The fire shall be ignited by the ignition officer under the direction of the Safety Officer.
- 6-19 Instructors and Safety Officer shall consider the circumstances of each training session and make provisions for the rest and rehabilitation of participants.
- 6-20 An accountability system shall be assigned for each evolution. The accountability shall use tags or other approved methods to ensure all personnel are accounted for.
- 6-21.1 NFPA Standard 1403 shall be utilized in addition to this SOP for any live fire training exercise.

### **Chapter 7 Safety Officer**

- 7-1 A minimum of one (1) Safety Officer is required.
- 7-2 The safety officer shall have the authority, regardless of rank, to intervene and control any aspect of the operations when, in his/her judgment, a potential or actual danger, accident, or unsafe condition exists.
- 7-3 The responsibilities of the safety officer shall include, but are not limited to, the prevention of unsafe acts, the elimination of unsafe conditions and supervise additional safety officers as needed.
- 7-3.1 The safety officer shall provide for the safety of all persons on the training site including students, instructors, visitors and spectators.

## ASSIGNED INSTRUCTOR BRIEFING CHECKLIST

Assigned Instructor(s) \_\_\_\_\_ Date:

- Brief all participants concerning demo/training evolutions, safety and safety Measures and facility SOPs.  Yes
- Accountability system?  Yes
- Communication system identified  Yes
- Pre-burn and safety inspection of facility?  Yes
- Pre-Burn Operational Checklist completed  Yes
- All personal protective equipment (PPE) meets or exceeds OSHA standards?  Yes
- Secondary hose lines of minimum 1.5" diameter?  Yes
- Two-person rapid intervention team (RIT) assigned?  Yes
- First Aid/EMT identified or Medical Emergency Plan in Place?  Yes
- All personnel accounted for before ignition?  Yes
- All spectators restricted to the designated area outside the operations area?  Yes
- Officer to student ratio established?  Yes
- Students informed to report all injuries and illnesses before leaving property.  Yes



## STUDENT RECORD

Location: \_\_\_\_\_

Date: \_\_\_\_\_

Instructor: \_\_\_\_\_

Safety/EMT: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

NO	NAME (PRINT)	SIGNATURE	DEPARTMENT/COMPANY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			