

STANISLAUS CONSOLIDATED FIRE PROTECTION DISTRICT  
POLICIES & PROCEDURES

ARTICLE: C-62  
SECTION: Operations Division  
DATE: December 17, 2009  
SUPERSEDES: NEW  
TITLE: Training Burn Policy/Procedure

**PURPOSE**

The purpose of this procedure is to establish standard guidelines for structural training fires while complying with NFPA Standard 1403. All other SCFPD procedures will also apply to training fires where applicable.

The objective of a training fire is to provide realistic fire ground training under actual fire conditions for recruit and uniformed firefighters while providing high levels of safety and minimizing risk to firefighters.

Training fires will be designed to minimize the risk and to control the fire conditions so that firefighters are not unnecessarily exposed to hazards or injuries.

Training fires present the same hazards as those encountered at actual field incidents. The Incident Command System employed at actual fire incidents will be the Standard Operating Procedure for all structural training fires.

**PROCEDURES FOR “ON-SITE” V/S “OFF-SITE” BURNING**

For the purpose of this procedure the following definitions shall apply:

**ON-SITE:** Shall be referred to any “live” training burns which occur at the (RFTC) Regional Fire Training Center.

**OFF-SITE:** Shall be referred to any “live” training burns which occur within the boundaries of the Stanislaus Consolidated Fire District.

**PERMITS**

All training burns that occur shall follow guidelines set forth by the San Joaquin Valley Air Pollution Control District office. The officer-in-charge of the training burn is responsible for complying with the conditions stated on the burn permit. This includes burning only during the dates and hours specified on the permit. The officer-in-charge shall verify the permit is valid and current before any burning takes place.

A burn permit shall only be obtained for training burns that occur in “Off-Site” locations. “On-Site” training burns shall only take place within designated areas of the RFTC, propane burn rooms and fire extinguisher pit, etc. Burn permits shall also be obtained for grass fire training and shall be treated accordingly.

When conducting training burns the officer-in-charge is responsible for calling the Air Quality Division each morning of the burn to verify burn day status and any changes to the issued burn permit.

All training burns which occur within the MTZ/SRA response areas of the State of California shall be coordinated with the California Department of Forestry and Fire Protection (CalFire). The officer-in-charge shall request the presence of at least one CalFire response unit when conducting training burns within these areas if available. Burning within these areas shall be conducted in winter or late spring/early summer months only to limit the threat to wildland/urban interface areas. Burning shall be coordinated with adjoining forces and shall cease immediately if winds reach 10mph or the fire weather dictates unsafe burning practices. Spot weather forecasts shall be taken every hour on the hour by the incident commander or his/her designee to obtain current weather conditions during burning.

## **OFF-SITE TRAINING BURNS**

### **PRE-PLANNING**

Buildings that have been acquired for the purpose of fire district training shall adhere to the following district guidelines as well as NFPA STANDARD 1403. The officer-in-charge and assigned safety officer of the drill shall conduct an initial inspection of the proposed training site.

Single-story structures shall always be considered first choice when selecting training in interior firefighting operations. Two-story structures will only be considered when the building has been thoroughly inspected by the Safety Officer and Command Officer. Both officers must agree that the building is structurally sound for training burns. Adequate egress/access points on the second floor must be readily available.

The officer coordinating the training fire will inspect the building with the Safety Officer. The building must meet fire safety and structural integrity criteria before approval to conduct a training fire is given by the Safety Officer. The Safety Officer has full authority to deny approval if the building is determined unsafe. Buildings incapable of withstanding exposure to fire conditions shall not be utilized. Buildings with bars on windows or doors that cannot be removed shall not be utilized. Buildings with serious exposure issues shall not be utilized.

Buildings that pose a potential to traffic control issues during training burns will not be utilized, unless prior approval and assistance has been authorized by the agency having jurisdiction. Traffic control measures shall remain in effect throughout the duration of the training burn.

## **ASBESTOS CONSIDERATIONS & TESTING**

Prior to the scheduling of any training activities an asbestos clearance must be conducted and certified by the San Joaquin Valley Air Pollution Control District and a licensed asbestos removal contractor. The asbestos survey must follow any guidelines set forth by the Air Pollution District which include sampling of all materials that may be determined to be suspect of asbestos. This may include roofing components, ceiling tiles and finishes, flooring or interior and exterior textured wall treatment layers including but not limited to stucco and paint. Metals, wood and glass are recognized as having no potential for asbestos.

If asbestos is determined to be found, it shall be eradicated by the approved contractor prior to any training activities take place. The cost of this testing and permit requirements are the full responsibility of the property owner.

## **INCIDENT ACTION PLAN**

An Incident Action Plan (IAP) is required to be developed during the planning phase and prior to actual live fire training. A copy of the plan shall be submitted to San Joaquin Valley Air Pollution Control District. Additional copies shall be provided to all Chief Officers and Company Officers participating in the drill. The IAP shall be followed to the best of the participant's ability.

## **BUILDING PREPARATION OBTAINING PERMISSION AND PERMITS**

Acquired structures that have been donated by independent corporations, contractors or individual property owners shall adhere to permit requirements. Any structures donated for the purpose of training shall obtain clearance through the Stanislaus County Building Department Demolition Permit Process and/or city equivalent, as well as San Joaquin Valley Air Pollution District requirements.

The training officer coordinating the live structure burn shall be responsible for obtaining all releases, permits and other approvals and releases relating to the training fire. They shall include, but not necessarily limited to the following:

1. Confirm a clear title on the property.
2. Obtain written permission from the property or building owner.
3. Verify ownership of the selected building or property.
4. Obtain documented proof of insurance cancellation of the selected building.
5. Obtain a burn permit from San Joaquin Valley Air Pollution District.
6. Ensure a Stanislaus County Building Department Demolition Permit has been obtained by property owner.
7. Obtain permission from Training Division Chief.
8. Obtain approval from District Safety Officer.

9. Obtain asbestos clearance from certified asbestos contractor and Air Pollution District. If asbestos, in any form, is determined in the structure, the structure will not be considered for training.
10. Obtain clearance from CalFire (If location is within MTZ/SRA response area).

### **SITE PREPARATION**

Prior to any training burns being conducted in any acquired structure, the following preparation items shall be addressed.

- Request a walk-through of the property with property owner, Air Pollution District representative, District training staff and training burn committee (if appointed). The walk-through should include identification of potential asbestos areas, structure hazard concerns to fire personnel and identification of training objectives to be achieved by the training division.
- Confirm location of septic tanks, gas & electric services. Ensure gas/electric services have been shut down and removed from building.
- Secure water sources to building.
- Confirm the location and access points of basement and attic areas.
- All debris will be cleared from entrances and exits and for a minimum of 50-100' from the exterior of the building.
- At least two points of egress shall be provided in all training fire structures.
- All interior contents shall be arranged to permit free access to and egress from all rooms.
- No additional combustible or smoke generating substances other than wood pallets or other Class A materials shall be added to any structures.
- The fire load shall be conservative for each area to be burned.
- Low-density combustible fiberboard and unconventional interior finishes shall be removed.
- All windows and doors to be used for egress or emergency evacuation will be checked for and made capable of unrestricted opening. Any window coverings, curtains, blinds, and drapes shall be removed.
- Structures will be pre-vented at the roof. The roof opening may be covered with appropriate material and made easy to remove if needed during fire attack to permit ventilation and prevent flashover or backdraft situations.
- Heavy exterior roof, attic or ceiling equipment of fixtures etc., shall be removed.
- Identify two water sources for fire apparatus.
- Pre-training fire checklist shall be completed and safety briefings shall take place.

### **NOTIFICATION OF TRAINING FIRE ACTIVITIES**

Prior to conducting any "OFF-SITE" training fires, the following notifications must be made:

- Air Pollution Control District Burn Permit shall be verified.
- SR911 Communications Center shall be given, location, address, nearest cross-street, time frames, type of burn, companies being utilized, companies committed and available,

- Shift Battalion Chief shall be notified at least 7 days in-advance to adjust staffing if needed, as well as notified the day of the event.
  - District Fire Chief shall be notified.
  - If training site falls within city limits, Office of City Manager shall also be notified.
  - Appropriate law enforcement agency having jurisdiction for traffic control if traffic is a concern or will be impacted in any way.
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- Cal-Trans or Stanislaus County Road Department for signs or traffic devices.
  - Adjacent properties and businesses shall be notified by flyer at least 7-10 days prior to the training burn so public concerns can be identified and addressed.
  - Training burn locations with potential threat to SRA or MTZ areas of the state shall be coordinated and scheduled within non-fire season months if at all possible.
  - Cal Fire shall be notified during pre-planning phases as well as the day of the event. If, the training site is within MTZ/SRA areas.

### **COMMAND**

One chief officer shall be on scene during all “OFF-Site” training fires. The chief officer on the scene shall be designated as “Incident Commander” and will assume command function during “Live Fire” operations.

A command post shall be established and positioned to afford maximum visibility of the structure, operating companies and fire conditions.

### **COMMUNICATIONS**

Command Staff is responsible for establishing radio communications with each company officer or training officer involved in the drill. Channel assignments must be coordinated with SR911 Communications as well as all companies involved. Companies operating at the training fire will continuously monitor the assigned radio channel. All radios will be checked for proper functioning and correct channel prior to initiating training fire operations.

### **GROUPS & DIVISIONS**

To eliminate confusion, and provide adequate scene control, all personnel operating within the fire ground perimeter shall operate under the direction of an officer. The fire ground perimeter shall be defined as the hazardous area surrounding the burn structure and shall be determined by Incident Command following guidelines stated in fire ground safety.

The following functional groups and divisions shall be established (as a minimum) on all structural training fires.

*Interior* - Company Officer or Training Officer that directs interior operations such as ignition of the training fire and fire suppression activities.

*Fire Attack* - Assigned Company to primary fire extinguishment.

*Back-Up* – Provide a manned, charged back-up line for each fire attack team. The team shall be positioned immediately outside of the fire area and ready for deployment in the event further assistance is needed in fire suppression.

*Exposure* - Provide manned, charged hose line positioned to protect exposed property. More than one hose line may be required depending on the exposures present.

*(RIC)* – Provide a manned, charged back-up line for each Fire Attack team. The Rapid Intervention Crew (RIC) team shall be positioned on the exterior of the structure but close enough to gain access quickly in the event of an emergency within the fire building. The RIC Team shall consist of experienced fire personnel (not recruit firefighters) and each RIC Team shall have a company officer assigned for supervision. RIC tool selection shall be in accordance with SCFPD Rules of Engagement policy page C-28b.

*Rehab* - All personnel assigned to active fire suppression activities shall rotate through Rehab and Medical Monitoring prior to being reassigned or being released from the training site. Rehab areas shall be established in areas located away from the fire building, where operating apparatus and smoke conditions are not a factor. Fixed or portable covered areas shall be utilized when available. This will allow personnel to be protected from the weather elements during Rehab time. Medical supervisors and/or ambulance paramedics shall be identified and provided to assist with medical evaluation of personnel while in Rehab.

*Safety* – The Safety Officer shall be in attendance at all training fires. If for some reason the District Safety Officer is not present, one will be appointed to assume safety functions and responsibilities. The Safety Officer will monitor personnel and fire conditions exterior of the fire building and within the identified training grounds / site. The Safety Officer shall work with assigned command staff to ensure all components of the safety plan are adhered to and personnel risks are minimized.

Interior safety functions shall be performed and monitored by the “Interior Officer”.

*Other* – Additional sectors, divisions, and/or functional groups may be established to control fire operations as well as to further minimize the risk to firefighters.

## **SAFETY**

The Safety Officer shall have full authority to intervene and control or stop any aspects of the operations when in his/her judgment; a potential or real risk to personnel exists. He/she will not be assigned other duties that would distract from his/her safety responsibilities.

Additional Safety Officers may be assigned to the training fire if the conditions dictate. Responsibilities of the Safety Officer(s) will include but not be limited to the prevention of unsafe acts and elimination of unsafe conditions.

Company officers acting as instructors will be responsible for the direct supervision of assigned students and their safety and welfare, including the prevention of unsafe acts and the elimination of unsafe conditions.

Fire department personnel will not be permitted to operate on the roof during live fire conditions in the building. Ventilation hole(s) shall be established prior to any live fire activities.

The number of personnel involved in training fires often exceeds the number normally assigned at actual incidents. To reduce risk, and assist with scene management, training fire participants shall be formed into individual companies consisting of no more than four (4) members and supervised by a company officer or "Acting" company officer.

Exposing recruit firefighters to structural training fires presents special safety considerations. All Sector/Division officers should anticipate that a recruit firefighter's exposure to interior fire conditions may be less than orderly. To reduce the possibility of injury, the span of control for interior operations shall not exceed two recruits for each company or training officer.

All firefighters involved in structural training fires shall have received at a minimum the training to meet the performance objectives of Firefighter 1, NFPA 1001:

- Forcible Entry
- Protective Breathing
- Fire Hose, Nozzles and Appliances
- Fire Streams
- Ladders
- Ventilation
- Rescue
- Safety
- Fire Behavior

All firefighters involved in structural training fires shall have received training and have met the requirements of Respiratory Protection Program, CAL-OSHA Title 8 Section 5144 (A). At a minimum the following objectives shall be met:

- Medical Evaluation
- Respiratory Selection
- SCBA Training
- Fit Testing

At no time shall personnel or outside civilians that have not met these requirements be engaged in interior operations or within IDLH atmospheres.

At no time shall personnel be permitted to act as a victim(s) during live fire training, rescue mannequins shall be utilized.

To reinforce safety procedures, a protective clothing and equipment inspection shall be conducted on all firefighters prior to engaging and after engaging in suppression activities. The inspection shall insure that all clothing and equipment is serviceable and worn in a manner to provide the maximum personal protection.

Any misuse or destruction of District assigned protective equipment will lead to potential disciplinary action by Management upon conclusion of an investigation.

The assigned Safety Officer will be responsible for completing the safety checklist prior to initiating the training exercise.

To enhance accountability and to improve tracking of the firefighters in the fire building and perimeter, the PASSPORT Accountability System shall be used.

Personnel Accountability Reports or “PAR” shall be used at the following accountability benchmarks:

- Fire Attack crews entering the fire building
- Any report of a trapped or missing firefighter
- Report of a sudden or hazardous event
- Changes in tactical modes, offensive to defensive, etc.
- Fire Attack crews exiting the fire building
- At the discretion of command

All PASSPORTS shall be surrendered to Incident Command or his/her designee prior to entering the training perimeter or Hot Zone. Upon the exiting the fire training perimeter or Hot Zone, the crew must retrieve their PASSPORTS. The accountability status board will only contain or reflect the PASSPORTS of the crew’s active within the training perimeter or Hot Zone.

Access to the fire training area will be controlled by fire line tape that shall be stretched around the building/training area perimeter.

Personnel operating outside of the fire building but within the perimeter may operate with the SCBA mask removed. All other personal protective equipment shall be in place. All other personnel and/or not wearing appropriate protective clothing and equipment shall remain outside of the training perimeter.

### **REQUIRED FIRE EQUIPMENT AND COMPANIES**

A minimum of two different water supplies shall be established prior to the beginning of any training burn evolution. Example: water tenders, fire hydrants, and/or static drafting operations.



Designated water supplies shall flow a minimum of 500 GPM. Fire Attack lines and RIC safety lines shall be supplied by separate engine companies. All hose lines shall flow at a minimum of 95 GPM.

A minimum of (1) Stand-by ambulance shall be on scene and assigned to the incident.

Additional resources and engine companies not involved in the training exercise shall be staged away from the incident and remain in the "Available" status until they have been assigned by the incident commander.

### **STARTING THE FIRE**

The use of flammable or combustible liquids, as defined in NFPA-30, shall be prohibited for use in live fire training exercises. Only Class A materials shall be used in live fire training. The ignition process will be conducted under the direct supervision of the "Ignition Officer" and Safety Officer. Command Staff will assign an experienced firefighter to become the designated "Ignition Officer". It shall be the responsibility of the Ignition Officer to initially ignite the fire. The Ignition Officer shall also regulate the fuel load for each evolution to maintain a tenable atmosphere inside the training fire rooms.

Fire attack lines, back-up lines and RIC lines shall be in place and ready prior to ignition.

### **ATTACK PLAN**

The officers in charge shall develop an attack plan based upon information obtained during the pre-planning phase, the development of the IAP and building preparation stages. Involved officers shall be in agreement with the plan to be executed. The Safety Officer and Incident Commander shall review and approve this plan prior to execution.

The Attack Plan shall specify:

- Points of origin
- Amount of fire load to be utilized
- Position of attack lines
- Position of RIC lines
- A rescue plan

All personnel involved in the drill shall be instructed on each element of the attack plan prior to the lighting of the training fires. All personnel involved in the drill shall receive a walk through briefing of the building or training area prior to starting any training fires. An evacuation plan and signal shall be reviewed and agreed upon prior to the starting of the drill.

Attack Plans for wildland training shall also include hourly spot weather forecasts & situation reports from assigned division(s) supervisors.

## **RE-USE OF LIVE TRAINING FIRE BUILDINGS**

The fire building will be re-inspected by the Safety Officer for structural integrity and for any hazards or unsafe conditions prior to each additional training fire in the structure.

## **RECORDS AND REPORTS**

The following records and reports shall be kept on file for a minimum of two years following any live fire training exercise. The records and reports shall be kept in the training division.

- An (IAP) Incident Action Plan of the event.
- Roll call of all participants, including command staff and support personnel.
- Documentation of unusual conditions or events encountered.
- Any injuries and treatment provided.
- Copy of "Transfer of Authority" form signed by property owner.
- Copies of all permits, releases or other documentation relating to the training burn.
- Records of critiques.

## **AFTER-ACTION CRITIQUES**

The officer-in-charge of the training evolutions shall conduct an informal/formal critique at the conclusion of the training evolution. The critiques can be held in the tailgate briefing format or in the formal classroom setting. The critique shall include but not limited to:

- Were the Incident Action Plan objectives clear and concise?
- Were the training objectives met and did they benefit participating personnel?
- What items/evolutions went well?
- What could be improved in the future?
- Were there any problems during evolutions? And if so, how were they resolved?

Written by: B/C Mike Wapnowski

Approved by: \_\_\_\_\_

Date: March 26, 2010

**OFF-SITE PRE-TRAINING FIRE CHECKLIST**

- \_\_\_ Develop Incident Action Plan (IAP) Ensure SJVAPC has a copy prior to training date.
- \_\_\_ Call San Joaquin Valley Air Pollution Control District to verify burn day status.
- \_\_\_ Safety Officer & Incident Commander to perform on-site building inspection.
- \_\_\_ Verification of obtained asbestos clearance & demolition permit.
- \_\_\_ Building structure was analyzed for structural integrity.
- \_\_\_ Exposures evaluated.
- \_\_\_ Special hazards evaluated and considered.
- \_\_\_ Access to site and all sides of the building adequate.
- \_\_\_ Water supply (two) adequate and identified.
- \_\_\_ Street traffic issues, blockage and/or signage, law enforcement notified.
- \_\_\_ Exterior debris, trees, and brush cleared.
- \_\_\_ Two points of egress/exits available.
- \_\_\_ Windows/doors unrestricted and any security bars removed.
- \_\_\_ Window coverings removed.
- \_\_\_ Interior access unobstructed and made uncomplicated.
- \_\_\_ Ceiling fixtures removed and holes covered.
- \_\_\_ Class "A" materials only for fire starting.
- \_\_\_ Interior combustibles and fire load reasonable/conservative.
- \_\_\_ Permission letters & pre-requisite training (NFPA 1001) obtained for non-district personnel.
- \_\_\_ Adjacent property owners notified verbally or written.
- \_\_\_ All utilities secured and disconnected.
- \_\_\_ Septic Tanks located and identified (if applicable).
- \_\_\_ Heavy attic or roof objects removed including TV antennas.
- \_\_\_ Porches, steps, and railings made safe.

- \_\_\_ Roof pre-vented with adequate opening.
- \_\_\_ Ambulance on-scene for medical monitoring and Rehab.
- \_\_\_ Division and Group Supervisors identified and briefed.
- \_\_\_ Command Staff & Safety Officer identified.
- \_\_\_ Command and Tactical frequencies identified through SR911.
- \_\_\_ PASSPORTS collected by Command Staff
- \_\_\_ All radios checked for correct function and channel selection.
- \_\_\_ Attack, Back-up, RIC, and Exposure lines in place and charged.
- \_\_\_ Attack plan identified and discussed with crews.
- \_\_\_ Safety briefings conducted and understood by all personnel.
- \_\_\_ Walk-through orientation conducted for participating personnel.
- \_\_\_ Logistical needs identified; food, water, shelter, porta-potty, etc.
- \_\_\_ Emergency Plan identified and understood by all.
- \_\_\_ Rescue Plan identified and understood by all.
- \_\_\_ Training Site perimeter secured and fire line tape in-place.

Office In-Charge \_\_\_\_\_

Date \_\_\_\_\_

**POST TRAINING FIRE CHECKLIST**

To be completed by officer in-charge of training drill:

- \_\_\_\_\_ All personnel accounted for and PASSPORTS returned to crews
- \_\_\_\_\_ Equipment and clothing accounted for and checked for damage
- \_\_\_\_\_ Remaining fires overhauled / extinguished
- \_\_\_\_\_ After-Action Critique completed
- \_\_\_\_\_ Hazards abated and building site made safe
- \_\_\_\_\_ Incident Action Plan & related paperwork gathered for filing
- \_\_\_\_\_ Copy of "Transfer of Authority" signed by building owner
- \_\_\_\_\_ Apparatus & equipment decontaminated, washed and placed back in service
- \_\_\_\_\_ Lock any gates opened and call owners to advise of training completion
- \_\_\_\_\_ Revisit training site within 3-4 hours to verify any smoldering embers

Officer In-Charge \_\_\_\_\_

Date \_\_\_\_\_