

**Tempe Fire Department Policies and Procedures**  
**Property Conservation/Loss Control**  
**207.05**  
**Rev 5-11-10**

**PURPOSE**

It is standard procedure to commit whatever fireground resource is required to reduce property loss to an absolute minimum. The activities that relate to effective property conservation require the same early and ongoing command functions and aggressive action as both rescue and fire control. All members are expected to perform in a manner that continually reduces loss during fire operations. There is "added value" to the quality of service when firefighting includes loss control functions. Loss control involves methods of minimizing loss in each of the tactical priorities through all phases of firefighting. Throughout each of the three (3) tactical priorities, the safety and survival of firefighters, customer service, and loss control functions are continuously addressed.

Search & Rescue = All clear  
Fire Control = Fire under control  
Property Conservation = Loss stopped

This procedure will discuss the elements of loss control and how they are integrated at emergency incidents.

**LOSS CONTROL**

The loss experienced by the owners/occupants of a structure as a result of a fire is devastating. Primary and secondary loss can be minimized through active loss control efforts. There are many opportunities for effective loss control during property conservation, but the other two tactical priorities (rescue and fire control) present significant loss control opportunities.

In addition to the psychological and emotional injuries our customers may suffer, the building suffers the effects of fire including charring, water, smoke, structural, and content damage. The structure becomes weakened by the fire. The building is unsecured and open to the elements of nature, as well as open to looting. The ceiling and walls throughout the house are damaged by smoke. Furniture receives water and smoke damage. Appliances (refrigerator) and swimming pools are without the electricity they need to preserve food and clean the pool. Through effective loss control efforts we can intervene in all aspects of the incident and take specific measures to minimize loss.

An important element of loss control is to extinguish the fire. Fighting the fire from the unburned portion will benefit loss control. This needs to be regularly reinforced with members. Fire attacks from the burning portion will usually push heat and smoke through the building and increase loss. Performing skills like forcible entry and ventilation should be done with loss control in mind.

When the fire is out, shut down the fire streams. Early recognition that the forward progress of the fire has been stopped is an important element in reducing loss. The earlier the loss control operation begins, the smaller the loss.

When basic fire control has been achieved, Command must commit and direct companies into "stop loss" activities; such activities generally include:

- . Evaluating damage to overall fire area.
- . Evaluating the salvage value of various areas.
- . Evaluate the personnel and equipment that will be required.
- . Committing the required companies to loss control functions.
- . Reducing hose lines from fire control functions to loss control functions.

In cases where there is an overlapping need for both fire control and loss control to be performed simultaneously and where initial alarm companies are involved in firefighting while loss control functions remains undone, strike additional alarms and commit greater alarm companies to salvage functions.

Commit the same overall and sector command resource to property conservation activities as were devoted to rescue and fire control.

Be aware that personnel involved in rescue and fire control operations are generally fatigued by the time property conservation functions must be completed -- this can result in sloppy work and many injuries. Evaluate the condition of personnel and replace with fresh troops if needed.

Prompt fireground lighting, both interior and exterior, reduces fire loss, and increases safety.

The provision of loss control functions must be integrated into the cause determination phase. When fire control becomes stable, back fire control companies out and let fire investigators develop a plan. Beware of personnel who want to quickly shovel out the interior and go home -- they will generally shovel out the evidence with the debris. Loss control measures may have to be suspended due to fire investigation needs. In this case, fire companies may have to return after the fire investigation to complete loss control activities.

Much of the property conservation profile of a building can be identified during pre-fire planning activities. Command must consider this profile in developing and extending a plan of attack.

Loss control may operate as a sector or a branch. When assigned as a branch, loss control may include several sectors.

## **WATER DAMAGE**

The most significant thing we can do to reduce damage is to put the fire out. As the fire travels so does the damage. An aggressive interior attack may be the best step towards enhancing loss control efforts. Yet knowing that water will do significant damage to dry wall, furniture, and flooring, means we have to control how much water is used. If possible, adjust the nozzle to allow for appropriate gallonage as required in attack lines. Do not wet down the attic unnecessarily -- put the water directly on the fire and burning embers. The use of class A foam in firefighting is another method of reducing water damage.

Water acts as a corrosive to pressed gypsum board (dry wall). It breaks the bond used in making the board. Most of the houses and commercial structures we encounter will have gypsum board on the walls and ceilings. When water is left to sit on gypsum board it will seep in and ruin the board. Company officers and firefighters should be aware of the damage to drywall by direct water spray and over spray. Reduce and eliminate over spray and it will minimize loss and water build up on the furniture. Standing water on wood flooring is also very damaging because it can cause delamination, staining, and cracking. For loss control purposes, remove standing water from floor and wipe table tops with a dry towel not allowing water to sit and penetrate the surface. Furniture sitting in puddles of water will be damaged. Water will migrate up the wooden legs of furniture. Place blocks under legs of the furniture to raise it up and out of the water. If no blocks are available, canned goods from the home serve the same purpose and are an option. Cover exposed furniture and other materials with salvage covers or plastic. When water has filled the attic space and is pooling on the gypsum use a drill or a screwdriver as a hole punch to allow the water to escape. Water sitting on the gypsum board will eventually seep through; by drilling a small hole we can possibly save the ceiling and the hole is easily patched.

## **CARPETING/FLOOR COVERINGS**

Water on carpeting in itself is damaging. It is made worse by soot and broken glass being ground in when stepping on the carpet. Hall runners should be used to avoid staining and grinding in soot.

When a window is broken to make entry the glass on the carpet may cause the need for replacement, especially if the glass is ground in. When possible throw a carry-all over the glass under the window to prevent the grinding by foot steps. If debris is covering a relatively good carpet or flooring, it should be shoveled out and swept off.

## **SMOKE DAMAGE**

Unless interrupted, the hot smoke produced by fire will move throughout the structure. Positive pressure ventilation (PPV) to clear the smoke can be performed during active fire stages. After fire control, closing or opening doors in the structure will help reduce smoke damage during ongoing ventilation efforts.

Cutting a hole in the roof is also favorable. Rapid removal of smoke improves firefighters ability to conduct search and rescue operations as well as effective fire control and salvage operations. Once the fire is extinguished and the embers cooled it is necessary to exhaust smoke. Avoid blowing it throughout the structure and continue to ventilate during overhaul. Take smoldering materials such as a couch outside for overhaul.

When appropriate, turn off the ventilation system in the building. The AC system will expose the remainder of the structure and might contaminate the air handling system (which could require its replacement).

## **DRYWALL**

Work to protect the structure. If possible, when checking for extension by pulling ceiling, do not pull drywall from corners -- it may require that both walls and ceiling be replaced and cause additional loss. Cut small inspection holes, preferably 6" x 6," to check attics. Remember that to relieve excess water in the attic space and to reduce loss, drill drainage holes into the ceiling.

## **BUILDING PACKAGING**

Just as we package a patient for transport in EMS we should also package a house or structure when we're finished. Each room should be completely ventilated. This will reduce smoke damage. The furniture should be covered with plastic. Water on counter tops and wooden furniture should be wiped off. The furniture should be raised up (blocked) to prevent water damage. Excess debris should be cleared off the floor. It will make the rooms look much cleaner and help alleviate the traumatic impact of the fire for our customers. Debris should be brought outside, kept away from the entrance, be covered with plastic, and anchored.

Customer valuables such as photo albums, video and audio tapes, clothing and other keepsakes found in closets need to be carefully wrapped and placed in boxes. Contents of the box should be marked on the outside for easier retrieval. Do not bag or box wet items. They will need time to dry before packaging.

Access holes where ceilings were pulled, roofs, or walls that were opened should be "squared up" on structural members except where special hazards are present (i.e., asbestos, etc.).

"Securing" the fire scene is also a function of loss control. Securing refers to actions required to protect the structures and contents from damage or looting after fire companies have departed from the scene. Roof ventilation holes and broken windows should be covered with plastic or other materials to reduce weather damage and deter vandalism. The rolled plastic is ideal for this use. For safety reasons, remaining glass shreds should be removed from the frames of broken windows prior to installing covers and always prior to leaving the scene.

## **ADDITIONAL CUSTOMER SERVICE ELEMENTS**

Performing loss control is a mark toward excellence in service delivery. It is a "signature" of professionalism in our craft. We should continually try to add quality and value to our work. In some cases, where safe to do so, escorting the customer through the fire area can help him/her see and visualize what we did and the need for overhaul operations. Companies should select an appropriate location for outside piles of debris. Debris in high travel areas should be avoided. Minimize trauma to the customer by helping to make the scene appear less devastating.

Also, proper loss control measures should be completed prior to any walk through. Act like the place is yours and the people who own and occupy it are your loved ones...This usually will lead us in the right direction.

In many cases, wearing dirty turnouts into a home on EMS or service calls can soil the furnishings. By keeping our turnouts clean, we could avoid unnecessary damage to flooring, walls or furniture. Simply hose off boots and pants after each fire call to eliminate or minimize loss created by dirty turnouts. When turnouts become contaminated or soiled, you need to contact Support Service personnel to have the turnouts sent in for cleaning.

Another part of the customer service effort is managing our conduct and behavior appropriately. We should be on our best behavior when working on the emergency scene.

The pets we encounter are, often times, considered by the owners a part of the family. While our primary mission is for the protection and care of people, we should attempt to provide an appropriate level of care and respect to

animals in distress. Whenever feasible and safe to do so and as part of our commitment to customer service, we should display an open, caring concern for pets and animals when dealing with a full range of situations.

On larger incidents loss control will be a significant part of the operation and additional resources/alarms may be necessary to insure the effectiveness of loss control efforts.

Loss control efforts will increase the value our customers place on our work. There is no question that we should strive to improve our services. Loss control is an area where we can always improve