

**DISTRICT OF COLUMBIA  
FIRE AND EMERGENCY MEDICAL SERVICES DEPARTMENT**

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**BULLETIN NO. 73**

**MAY 2008 (New)**

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**STANDARD OPERATING PROCEDURES FOR THE COLLECTION,  
IDENTIFICATION, TRANSPORTATION AND STORAGE OF EVIDENCE  
COLLECTED AND PROCESSED BY THE  
DC FIRE AND EMS DEPARTMENT**

**I. MISSION**

The DC Fire and EMS Department (FEMSD) is responsible for the prevention, suppression and investigation of all fires that occur within the District of Columbia. The Metropolitan Police Department (MPD) is responsible for investigation of crimes committed within the District of Columbia.

- A. All evidence collected and processed by the FEMSD will be transferred to a designated evidence collection facility for MPD.
- B. All evidence collected and processed will follow MPD General Orders and Guidelines.
- C. All recovered evidence for court or administrative purposes for FEMSD cases will be released to responsible parties under MPD General Order and Guidelines.

**II. SCOPE OF SERVICE**

Pursuant to the applicable authorities and in the furtherance of the shared goals of the Parties to carry out the purposes of this MOU expeditiously and economically, the Parties do hereby agree:

**A. Responsibilities of the FEMSD**

- 1. Responsible for the prevention, suppression and investigation of all fires that occur within the District of Columbia. The Fire Marshal and other personnel, as designated in writing by the Fire Chief, shall have and exercise and are hereby invested with the same general powers, including arrest powers as regular members of the MPD for the express purpose of enforcing the fire safety laws in effect in the District of Columbia. The power shall extend to any arrest, the securing of warrants pursuant to

2. Chapter 5 of Title 23 of the D.C. Code, provided that the Fire Marshal and other designated arson investigators shall have successfully completed a course in the safe handling of firearms and the deadly force and each person shall be qualified to use a firearm according to the standards applicable to offices of the MPD.
3. Follow MPD General Orders, specifically
  - General Order 304.8, "Collection of Physical Evidence"
  - General Order GO-OPS 308.11, "Handling Fire/EMS Incidents"
  - General Order GI-OPS 309.02, "Bomb Threats and Explosive Devices"
  - General Order SPT 601.03, "Preservation of Potentially Discoverable Material"
4. Provide financial reimbursement for training of Fire and EMS designated employees in evidence collection, documentation and transportation to approved evidence collection center.
5. Provide financial reimbursement for training of designated MPD employees in the safe handling and storage of hazardous materials associated with fire scene evidence.
6. Provide a fire-proof conex storage container for the storage of fire scene related hazardous materials and the costs associated with the relocation at an MPD evidence collection center to be determined at a later date.
7. Transfer custody of fire-proof conex storage container and contents to MPD effective June 1, 2008. Fire-Proof conex storage container will be maintained on-site at the quarters of Engine 24, 5101 Georgia Avenue, NW, 20011 pending relocation.
8. FEMSD will dispose of Consumer Grade Fireworks, 1.4 collected by MPD and presented for disposal no later than August 31 of the respective calendar year.

**B. Responsibilities of MPD**

1. Investigation of crimes committed within the District of Columbia.
2. Receiving, identification, transportation and storage of all evidence processed and received by the FEMSD Fire Investigations Unit.

3. Ensure all recovered evidence is available for court and/or administrative purposes.
4. Provide training of DC Fire and EMS designated employees in evidence collection, documentation and transportation.
5. Follow MPD General Orders, specifically
  - General Order 304.8, "Collection of Physical Evidence"
  - General Order GO-OPS 308.11, "Handling Fire/EMS Incidents"
  - General Order SPT 601.03, "Preservation of Potentially Discoverable Material"
  - General Order GO-OPS 309.02, "Bomb Threats and Explosive Devices"

**C. Responsibilities of FEMS/MPD Evidence Teams**

Personnel will follow MPD G.O. Series 304.8, "Collection of Physical Evidence."

1. Notification Process
  - a) FEMSD fire investigators will make a determination for the collection of evidence on scene of incident. Determination will be made in adherence with NFPA 921 and NFPA 1033 guidelines.
  - b) FEMSD fire investigators will request through the Office of Unified Communications an MPD evidence technician to report to the incident scene.
  - c) FEMSD fire investigator will document evidence to be collected. Documentation will be made in adherence with NFPA 921 and NFPA 1033 guidelines, including photographing and diagramming of evidence location.
  - d) FEMSD fire investigator will maintain chain of custody and scene safety pending arrival of MPD evidence technician.
  - e) MPD evidence technician, upon reporting to the scene, will report to the Fire Incident Commander Command Post to acknowledge accountability status.
  - f) MPD evidence technician will be briefed by FEMSD fire investigator on incident, nature of evidence, location of evidence, type or class of evidence, and quantity and materials for collection.

- g) MPD evidence technician will be responsible for collection of all evidence with assistance from FEMSD fire investigator.
- h) MPD evidence technician will provide evidence control number and evidence custody form to FEMSD fire investigator. FEMSD fire investigator will record and attach copy to the Fire Investigations Report.
- i) Evidence to be tested by ATF laboratory must have the following completed:
  - 1) ATF supervisor has been briefed to the facts of the case and type of evidence to be transmitted.
  - 2) ATF number has been assigned.
  - 3) Evidence has been properly sealed, initialed and labeled.
  - 4) Evidence and all necessary paperwork have been provided to an ATF Special Agent to transport the evidence to the laboratory.
- j) Evidence will be transported to appropriate evidence collection center by the MPD evidence technician. All materials classified as hazardous materials will be destroyed after sample collected and materials documented by appropriate hazardous materials contractor.
- k) Any evidence determined to be an explosive device, all actions of personnel will follow MPD General Order GO-OPS-309.02, "Bomb Threats and Explosive Devices," dated July 13, 2004.
- l) Evidence for release and destruction will follow MPD General Orders.

### III. SAFETY

Scene safety will be the responsibility of the FEMSD fire incident commander. All FEMSD fire investigators and MPD evidence technicians while operating in a hazard zone will follow all safety policies and orders from the FEMSD fire incident commander, including the use of appropriate safety gear.

FEMSD will issue FEMSD personal accountability identifications to MPD evidence technicians for utilization on fire incidents.

#### **IV. RESOLUTIONS OF DISAGREEMENTS**

Any disagreement about the provisions of this policy or the conduct of personnel pursuant to this policy shall be referred to persons signing this policy for resolution.

#### **V. TRAINING**

Personnel of FEMSD and MPD will be trained in applicable hazardous materials handling and evidence collection. Facilitator of training will be responsible agency.

#### **VI. CONFIDENTIAL INFORMATION**

The parties to this Operations Policy will use, restrict, safeguard and dispose of all information related to services provided by this policy in accordance with all relevant federal and local statutes, regulations, policies. Information received by either party in the performance of responsibilities associated with the performance of this policy shall remain the property of the respective agency.

#### **VII. Fire Suppression Responsibilities for Scene Preservation**

##### **A. Introduction**

Members should be aware that one of their primary responsibilities on the fire scene, as it relates to fire investigation, is to recognize any “incendiary indicators” or the possibility of arson. This would include items such as multiple fire sites, incendiary devices, trailers, or the presence of flammable liquids or containers in the area of origin. To clarify the role and responsibilities of fire suppression personnel, put simply, it is extremely important to preserve the fire scene intact and to protect evidence whether the cause is eventually determined to be incendiary or accidental.

The accurate determination of fire causes can have broad effects. It can cause an increase in safety for firefighters and citizens, reduce loss of life and property and result in the criminal prosecution of arsonists. In order to accomplish the objective of accurate fire cause and origin determination, the Fire/Arson Investigation Unit of the Fire Prevention Division has at least one member on duty at all times. An investigator will report to the fire scene as soon as possible when requested under the following circumstances:

1. Anytime a fire appears to be the result of arson or is incendiary in nature.
2. Anytime the circumstances of the fire appear to be of a suspicious nature, or when the Incident Commander receives information indicating the same.
3. At all fires involving serious injury or death to firefighters or civilians.

4. Anytime the Incident Commander has reason to believe there is a violation of the D.C. Fire Code that requires immediate attention and/or presents a life safety hazard.
5. Vehicle fires where the cause of ignition appears to be incendiary in nature, when the vehicle is inside a structure, or when serious injury or death occurs as the result of a vehicle fire.

It will be the responsibility of the Incident Commander to request a Fire/Arson Investigator when needed. SOP's with regard to the automatic dispatch of an investigator are in place and all cases, Communications will notify the Fire/Arson Investigator to respond to the fire scene.

Once a Fire/Arson Investigator has been dispatched, it is important that fire suppression personnel assist him/her as follows:

### **B. Preserve the Fire Scene and Physical Evidence**

Preserving the fire scene is the responsibility of all personnel. Every effort shall be made to protect and preserve the fire scene, leaving as much intact as possible, with the contents remaining in their pre-fire locations.

Unlike other investigations, fire investigations present special problems relating to physical evidence. Therefore, it is necessary to preserve the fire scene intact as much as possible whether the fire cause is at some point determined to be accidental or incendiary. Since the cause of a fire is usually not determined until the end of the fire scene examination or until the end of the investigation overall, the value of evidence may not be known. As a result, the entire fire scene must be considered evidence and must be protected and preserved.

The preservation of the fire scene will begin with the first arriving units and will continue until the scene is secured by the Incident Commander or the investigator. Improper scene preservation will result in destruction, contamination, loss or unnecessary movement of evidence. Only authorized entry to the scene will be permitted and fire suppression activities will be limited to those that are absolutely necessary.

### **C. Evidence**

Evidence is not limited to incendiary devices or containers of flammable liquids. Everything in the fire scene is considered evidence including the physical structure, contents, fire patterns, other physical evidence and any material ignited.

### **D. Fire Patterns**

Fire patterns are defined as "the visible or measurable physical effects that remain after a fire". These patterns include the effects of fire such as charring, oxidation consumption of combustibles, smoke and soot deposits, distortion, melting, color changes, changes in the shape

of materials, structural collapse and other effects.

Fire patterns represent the entire burn history of the fire and must be preserved as much as possible.

From the perspective of the Fire/Arson Investigator, preserving fire patterns is the most critical function of fire suppression personnel. The preservation of fire patterns is essential for the investigator when determining the area of origin of the fire. N7FPA 921, Guide for Fire and Explosion Investigations, Section 11-1, states, "Generally, if the area of origin cannot be determined, the fire cause cannot be determined".

If the area of origin cannot be determined this usually results in fire cause being classified as undetermined.

#### **E. Fire Debris and Other Physical Evidence**

Fire debris may contain physical evidence which may be the remains of materials first ignited, the ignition source or items or components related to the fire. These items are only discovered through careful and thorough examination of the fire scene, again making the preservation of the fire scene a top priority.

#### **F. Fire Suppression and Preserving the Fire Scene**

In their attempt to control and extinguish the fire, fire suppression personnel are protecting evidence by not allowing further damage to take place. The ability of fire suppression personnel to preserve the fire scene is the single most critical element in the investigation of fires. Fire suppression personnel are often not aware of how important their role in the overall fire investigation process is. Although fire suppression personnel are not responsible for determining the cause and origin of the fire, by preserving the fire scene and the physical evidence they become an integral part of the investigation.

#### **G. Firefighters' Responsibilities Regarding Fire Investigations**

There are four (4) basic functions for fire suppression personnel to consider:

1. Observation - Observation means "to take notice of" the particular elements at the fire scene, conditions and circumstances that exist. Generally, firefighters are in the best position and have the best opportunity to view the fire scene during and immediately after the fire occurs. Often it is the observations of firefighters that play a key role in determining the location of the area of origin and the location of physical evidence.

2. Recognition - Recognition refers to the act of being aware or perceiving or acknowledging something. When applied to fire scenes, recognition means recognizing physical evidence which could assist the Fire/Arson Investigator in determining the cause and origin of the fire.
3. Preservation - Preservation or to preserve means "to protect or to maintain intact". At the fire scene this is one of the primary responsibilities of the firefighter. To protect and preserve the materials on the fire scene until the investigator has collected and/or documented these materials.
4. Notification - As soon as practical after physical or other evidence is discovered, it should first be preserved and protected. If the investigator is not yet on the scene or is otherwise unavailable, the Incident Commander shall be notified of the discovery. The investigator shall immediately, or as soon as possible, take charge of all evidence.

## **H. Fire Suppression Operations**

During fire suppression operations, units shall make every effort to avoid causing unnecessary damage when using straight streams from hose lines, pulling ceilings, breaking windows, breaching walls and performing overhaul and salvage. Excessive overhaul and salvage by firefighters causes movement of items at the fire scene, which has a critical effect on the fire investigation process.

## **I. Hose Streams**

Obviously, hose streams are necessary at the fire scene. However, when used to their extreme, or when incorrectly used, they have the potential to destroy evidence. Straight stream applications are especially destructive, particularly when directed at the base of the fire, since this may cause destruction of the area of fire origin. Sources of ignition can also be found at the area of origin, as well as other evidence that is often moved or destroyed by straight stream applications.

Controlling the flow and amount of water, or "nozzle control", is important to the successful completion of the fire investigation. Excessive amounts of water introduced into the fire scene can dilute possible or suspected flammable liquids present in the area of fire origin. Analysis of diluted evidence can produce a negative result in the laboratory when a flammable or ignitable liquid may have been present at the time of ignition. Flowing excess amounts of water may also result in washing away other evidence such as matches and burned wood or paper, thus making their discovery impossible. Lost evidence diminishes the successful completion of the fire investigation and lessens the chance of prosecuting those responsible when the fire cause is determined to be arson.

Hose streams shall also be monitored during overhaul operations such as washing down. Controlling the excessive use of water in areas where it cannot easily be drained is important in the preservation of fire patterns on floors. When draining floors of standing water, locate the

drain hole in a place that has the least impact on the fire scene and any evidence that may possibly exist in that particular area.

Generally, the use of water at the fire scene shall be limited to the amount that is necessary to bring the fire under control. The excessive use of hose streams and the flowing of unnecessary amounts of water after the fire is out shall be avoided until the investigator has examined the fire scene.

## **J. Overhaul**

Overhaul is the process, function or procedure of searching for hidden pockets of fire. Usually this is accomplished by removing ceilings, walls and flooring of the structure involved. It is during this phase of firefighting operations that most of the remaining evidence not already lost, damaged or destroyed by the fire itself or the extinguishment of the fire is destroyed or displaced. Excessive overhaul, prior to the examination of the fire scene by the investigator, can severely effect the outcome of the investigation and hamper the investigator in determining the area of origin, the cause of the fire and the identity of the person responsible for the fire. If the investigator is on the scene during the fire, it is suggested that he/she be involved in the overhaul operation to the extent that the investigator would ensure the preservation of evidence.

While it is expected that firefighters have a responsibility to check for fire extension, it shall also be expected that they have a responsibility to preserve evidence at the fire scene. In most cases these two responsibilities appear to conflict and, it is the preservation of evidence that usually suffers. Firefighters can however, search for hidden fire and preserve evidence when the two responsibilities are approached in a systematic manner.

Overhaul should be accomplished in two phases. The first phase of overhaul should be limited to the inspection or search for fire extension. This phase should begin at the area of least fire damage, or away from the suspected area of origin. In most cases this is less likely to damage or destroy evidence, including fire patterns, while meeting the objective of checking for fire extension.

Phase two involves a more complete and thorough inspection of the fire scene in the area of most fire damage, after the investigator has completed his/her examination of this area for possible evidence, reconstructed the scene and analyzed fire patterns.

The importance of proper overhauling of the fire and its effects on the preservation of fire patterns cannot be overstated.

## **K. Salvage**

Salvage is another fire suppression operation which often has a devastating impact on the fire scene examination. Salvage is often described as protecting or limiting fire related damage to the contents and materials within a structure.

This is accomplished by removing or covering these contents or materials. Salvage also includes the clearing or removal of fire debris and burned or charred contents from the fire area.

Moving fire debris, fixtures and contents from their original location in the fire area can adversely effect the reconstruction of the fire scene. Even the slightest movement can alter the examination of fire patterns. However, even more serious than moving fire debris and contents of the fire scene is the practice of completely removing the contents of a room or portion of the structure.

Moving, and particularly removing contents of the fire scene, shall be strictly prohibited unless absolutely necessary until the investigator's examination, reconstruction and analysis is completed. The investigator should be given every opportunity to view the fire scene intact, thus making the accurate determination of the fire cause and origin more possible.

The indiscriminate removal and destruction of structure contents not only has a devastating effect on the fire investigation process, it causes unnecessary damage to personal belongings and is met with disapproval by citizens.

#### **L. Movement of Knobs and Switches**

Suppression personnel shall refrain from turning knobs and operating or resetting switches on any equipment, appliances or utility service at the fire scene until they have been observed, examined and documented by the investigator. The position of knobs and switches can be crucial in the investigation process, especially in the determination of ignition sources. Movement of these knobs and switches can cause them to break as they may become brittle from exposure to heat. The result could give false or erroneous indications and lead the investigator to wrong conclusions. When necessary utility services should be disconnected at remote locations (i.e., at the curb, in the street, or other uninvolved locations) and even then, the position and the condition of the device should be noted and reported to the investigator.

#### **M. Use of Power Tools**

The use of power tools and equipment shall be carefully controlled and even prohibited in certain areas. Examples would be near the area of fire origin or when an ignitable substance is suspected or confirmed to be present. The refueling of power tools and equipment shall be done outside the perimeter of the fire scene and away from fire debris. Firefighters must be aware of the possibility of "cross contamination" or the introduction of fuel from power tools and equipment including fire apparatus, into the fire scene.

The value of evidence is lost and erroneous conclusions are reached when the scene has been contaminated from fuel spilled at the fire scene while refueling power tools and equipment.

**N. Contamination of the Fire Scene and Physical Evidence**

Contamination is the “condition of impurity resulting from mixture or contact with a foreign substance”. Contamination or “cross contamination” of the fire scene can lead to false or misleading hypotheses as to the cause and origin of a fire. As previously stated, contamination of the fire scene is possible when firefighters refuel gasoline or diesel powered tools and equipment, and from the exhaust gas produced by oil/gas mixed fuel powered tools. Firefighters can also unknowingly contaminate the fire scene when moving or removing fire debris to and from different areas. Contamination can result from firefighters introducing residue of flammable or ignitable liquids from their boots or other personal equipment.

Firefighters entering the fire scene shall take every precaution to avoid “cross contaminating” potential evidence. Thoroughly washing boots and other personal equipment before entering the scene can eliminate or lessen contamination.

In arson cases, “cross contamination” of evidence usually results in the dismissal of charges against the arsonists.

**O. Limiting Access to the Fire Scene**

Access to the fire scene shall be limited to those persons who need to be there. This includes limiting firefighters, police and other emergency personnel to those who are necessary to accomplish the task at hand. There are legitimate concerns for limiting access to the fire scene. Contamination and damage or destruction of evidence are immediate concerns. Furthermore, when circumstances such as a verified crime scene or a fire fatality are involved it becomes critical to limit access to the area and anyone entering should be logged into the scene and their purpose for being there recorded.

The Incident Commander shall establish a perimeter around the incident scene and control the entry of personnel into this area as necessary. In this instance, the incident scene shall be defined as “the area likely to be subject to investigation”. This function will be assigned by the Incident Commander to a unit of his/her choice. This perimeter will be in place until the on-scene investigation is completed. Any special needs to conduct the investigation shall be requested through the Incident Commander.

It should be noted that in the case of a fire fatality, or a serious injury where death is possible, members of the DC Arson Task Force, will respond to the scene. The Fire Investigator will consult with these members and will conduct a joint investigation with the DC Arson Task Force.

Additionally, the Fire/Arson Investigators may receive assistance from the DC Arson Task as the result of an incident in a federal building, an incident involving domestic violence or witness intimidation, where explosive devices were used or suspected, or any other time that the Fire/Arson Investigator deems their assistance necessary.

**P. Vehicle Fires**

In general, vehicle fires shall be viewed in the same context as structure fires when it comes to fire scene preservation. The Incident Commander should gather as much information as is reasonably possible, such as Vehicle Identification Number (VIN), tag number, vehicle make, model and color. This information should be recorded and made available when requested by the investigator or police officer.

**Q. Conclusion**

It is essential that the fire scene remain intact and undisturbed until it can be examined, analyzed, documented and all evidence has been collected. The important concerns regarding firefighters and their responsibility for preserving the fire scene is attitude and awareness. When firefighters are made aware of the contribution they make to the investigative process, and of how critical their impact on the overall outcome is, fire scene preservation will become a priority.

The result of preserving and protecting the fire scene will improve fire pattern analysis, and produce more accurate fire cause determinations, not to mention the improved conviction rates of arson related prosecutions.