



Texas Department of Insurance

State Fire Marshal's Office – Forensic Arson Laboratory

Shipping Address: 7915 Cameron Rd, Austin, TX 78754-3803

Laboratory Telephone: (512) 676-6801 • Fax: (512) 490-1055

www.tdi.texas.gov/fire/fmlab.html

FORENSIC ARSON LABORATORY GUIDELINES FOR EVIDENCE SUBMISSION

These guidelines are intended to aid investigators and local law enforcement agencies in correctly submitting fire debris for forensic analysis to the State Fire Marshal's Office Forensic Arson Laboratory (SFMO FAL). They are not intended to instruct investigators on how to investigate fires. Rather, they are meant to inform submitting agencies as to the requirements surrounding proper submission, receiving, and packaging of evidence as outlined by the laboratory protocol and the laboratories accrediting body. The SFMO FAL evidence and testimony **cannot** be admitted in court unless it maintains this accreditation.

The State Fire Marshal's Office Forensic Arson Laboratory reserves the right to refuse and return evidence if the guidelines are not properly followed. This would compromise the lab's accreditation process. Submitting agencies in turn have the right to deny any of the changes made by the SFMO FAL to submission forms and physical evidence packaging as described below. To do so, please review the protocols below and contact the SFMO FAL's Crime Lab Specialist at 512-676-6801 for further instruction.

SUBMISSION FORMS

Use the most current version of the submission form of the State Fire Marshal's Office Forensic Arson Laboratory (SFMO FAL) found on the website:

<http://www.tdi.texas.gov/forms/sfmfirearson/sf008labsub.pdf> .

With the exception of the "negative return" & "pertinent information" portions, fill in EVERY blank. If there is no current info available for that field (e.g. suspect, victim, etc.), enter "n/a" into that field.

Check and initial the "negative return" box *only* if the evidence needs to be returned *regardless* of negative results. All evidence marked **biohazard** will be returned automatically per State Fire Marshal's Office Forensic Arson Laboratory (SFMO FAL) protocol.



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Filling out submission form blanks:

Agency Case Number: Use the case number of the agency that will be receiving the *final analysis report*. For example, if the case is being worked by both the Fire Department AND the Police Department, but the Fire Department requires the report, use the Fire Department's case number. **Be sure to always use this same agency case number when submitting additional evidence on this case.**

Offense: Because the SFMO Forensic Arson Laboratory is a *criminal case* lab, only samples (evidence) linked to crimes or possible crimes can be submitted. Only criminal offenses (e.g. Homicide, Prohibited Weapon, Theft, etc.) should be listed in this blank. When referring to possible incendiary fires, only two designations are allowed per SFMO FAL protocol: **Arson or Undetermined Fire**. Incendiary, Accidental, or Pending are NOT acceptable offense designations. The SFMO FAL reserves the right to cross through and change the offenses in order to meet required protocols.

Note: If "Incendiary" appears under "Offense," the SFMO FAL reserves the right to change this to **Arson**. In the case of "Pending" or "Accidental," **Undetermined Fire** will be entered.

Date of Offense: Reflects the actual date of incident. If there is a range of dates, enter only the **first** or earliest date in that range.

County of Offense: Reflects the actual county where the incident occurred. If multiple fires occurred over several counties, either enter the county of the **first** incident OR assign separate cases per county of incident. This county must be one in the state of Texas or it is out of the SFMO FAL jurisdiction.

Submitting Official: Name and signature of the person actually submitting evidence. If evidence the evidence is submitted in person, **the name of the person physically submitting the evidence should be in this blank/field.** ***Note:** this can be different than the "contact name" (the person that will be receiving the final analysis report).

Phone & email address: Can be the phone number/email address of either the submitting official or the contact person.



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Agency: Must be the agency that will be receiving the final analysis report. Please call the SFMO Forensic Arson Laboratory (512-676-6801) for instruction if multiple agencies are working the same case.

Contact Name: Must be the name of the person who is to receive the final (with original signature) analysis report. Can also be general term such as "Houston Arson Division."

Mailing Address: Complete physical mailing address (including city and zip code) of the agency receiving the report. ***Note:** This is also the address to which the evidence will be returned. **If the mailing address is either a PO BOX or different than the address to which the evidence need be returned, please either provide the shipping address in the "pertinent information" section at the bottom of the submission form OR call the SFMO FAL Crime Lab Specialist at 512-676-6801 to inform her/him of this.**

Email report: A check box is provided if emailing the final analysis report is the method of preference. ***Note: Check only** if agency does **NOT** require an original printed copy mailed.

Suspect/Victim: Names only required in these fields **IF submitting items, such as clothing, whose origin is the victim or suspect.** It must be indicated whether the name being entered is the suspect or victim by checking the appropriate box. Also note the format is: FirstName MiddleName LastName. **Please type or print legibly.**

***Note:** If there is a typo in the name, the SFMO FAL must also mimic this typo in the report and cannot assume the spelling of the name. For example, if Michael appears as "Micheal," the misspelled name will appear on the final analysis report. It is up to the discretion of the Crime Lab Specialist receiving the evidence to call and/or email the agency to verify correct spelling.



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Description of Evidence Submitted

Item #: Enter only the item number assigned to the samples (e.g. 1, 2A, D, EN-1, etc.) DO NOT include tag numbers. **Please make sure that item numbers on submission form match the actual numbers on the submitted cans of evidence.** Also, do not duplicate item numbers (e.g. do not assign the item “1” to more than one can submitted in a single case; a case can only have one item 1, 2, 3, etc.). Continue this rule when submitting additional evidence to the same, previously submitted case.

The SFMO FAL reserves the right to cross through and correct the item numbers in all (but not exclusive to) the following instances in order to meet SFMO FAL protocol:

- When an item number is lengthy due to tag number or any other superfluous numbers. Example: E1-tag01243 will be corrected to E1.
- If the item numbers appearing on actual evidence (cans) either do NOT match their description on the submission form OR are different than those on the submission form.
- If additional evidence has been submitted and item numbers have already been assigned to previously submitted samples. Example: AL-12-0344 on 5/15/2012 submission items #1, 2, 3; additional evidence submitted on 5/18/2012 for AL-12-0344 has items #3,4,5-- #3 will be changed to #6 for continuity purposes.
- If identifying terms such as “gasoline” or “gasoline-like smell” are used, the SFMO FAL reserves the right to strike through them and leave them off of the final analysis report.
- If any commonly accepted words are obviously misspelled or the wrong spelling of a word is used, the SFMO FAL will make the correction *on the final analysis report*. No strike throughs or physical corrections to the submission form are necessary. Example: “debirs” instead of “debris”; “vile” instead of “vial.”



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- If any other “errors” that do not meet protocol and are not listed here occur, the SFMO FAL reserves the right to make the necessary changes and inform the agency either by phone call or email OR by sending a corrected copy of the submission form with the final analysis report.

Description of Evidence: “Debris” or “Fire debris” is always an acceptable description. The SFMO FAL encourages a more physical description when the debris is identifiable such as “wood,” “carpet,” “car floor mat,” etc. When describing *identifiable* debris, **describe only the physical attributes**. Do NOT use any terms that may be deemed as “biased.” For example, a “gasoline can” be described as a “red plastic container.” Molotov cocktails and their wicks should be described physically as well: “broken glass bottle”; “melted plastic bottle with burned cloth.”

Origin: Describes the *physical location* from which the evidence was collected. General terms are also required: residence, first floor of home, apartment complex, 2007 Jeep Cherokee, etc. **Do NOT use** mailing addresses and license plates both for privacy and implied bias reasons. These discerning numbers should be in individual investigator reports, but NOT on the submission form.

Also **note**, when submitting evidence for another agency, the *actual physical origin of evidence* must be maintained. “Austin Police Department Evidence Locker” is NOT acceptable *unless* the evidence/debris is actual pieces of a burned evidence locker from an evidence room fire.

Exam Requested: The only type of analysis the SFMO Forensic Arson Laboratory performs is ignitable liquid residue detection. Therefore, “**ignitable liquid residue**” should appear in this field when submitting fire debris analysis evidence.

There are occasions when DNA and Latent Prints examination is needed as well as ignitable liquid residue detection. These types of analysis can be indicated in this portion of the submission form. In cases needing DNA or Latent Print analysis, the SFMO FAL will perform the analysis process **FIRST** and then forward the evidence per SFMO FAL protocol to the appropriate Texas Department of Public Safety Crime Lab.



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Note, however, that this can only be done with burned items. Any UNBURNED items must undergo either DNA/LP OR ignitable liquid residue analysis, but NOT both. Having both (or all) analysis done is NOT recommended as the accuracy of results cannot be guaranteed.

“Any pertinent information” box: In this section, please indicate if the evidence listed on the submission form is additional evidence on a case previously submitted to the SFMO FAL by checking the box AND entering the AL-##-#### assigned by the SFMO FAL. If the actual FAL lab number is unknown, the agency case number will suffice.

Only **SFMO K9** teams need to be noted here **if** one was used as a tool for collection of evidence. The current SFMO K9s are: Clear, Gabby, Lizzie, Nico and Saxon.

On the other pertinent information, only indicate such things as **“biohazards”** or **“acetone suspected,” “ethanol suspected,” “isopropyl alcohol suspected.”** These designations are necessary to help the chemist prepare for proper handling of these types of evidence and/or flag the chemist to work the evidence immediately due to the possibility of rapid loss of ignitable liquid residue. This section may also be used to indicate fatalities or other pertinent information on the case.

LABELING AND PACKAGING

The laboratory recommends the use of the epoxy-lined metal cans for preserving evidence. On occasion, due to size and shape of evidence, Kpak bags may be used. These Kpak bags **must** have undergone the SFMO FAL's Quality Control Process (see QC Process section below) in order to generate reports *without* a contamination disclaimer. Metal cans are still the preferred method of the SFMO FAL due to the processes used in analysis.



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Cans are available in pint, quart, 1-gallon, 2-gallon, and 5-gallon sizes. The latter two are difficult to find and costly, hence Kpak bag use is allowed. The container must be clean, unused, and airtight. Remove any debris from the sealing groove of the container to ensure a good seal. Mark the case number and item number on the **body of the can** using permanent ink markers or adhesive evidence tags. Please minimize the area used for this purpose, keeping in mind that the SFMO FAL must also mark these cans with unique case numbers and chain of custody information. Also note that marking only the lid of the can may lead the court and jury to believe evidence samples may have been confused or switched in the analysis process. Marking both lid and body of the cans is fine as long as all the information matches and takes up minimal space.

Please remember to tape all the way *across* the individual can lid, from one end of can to the other. Initial AND date this tape, making sure that the initials/date is written partly on the can and the tape, in a continuous fashion and in such a way that any tampering would be very obvious. The integrity of all the evidence will be compromised *unless* the items are individually sealed.

This will also reduce questions of possible tampering when taking custody of the evidence from another agency or investigator. Before taking custody of any evidence, make sure that the agency or investigator initial and date ALL seals properly. The SFMO FAL will **NOT** officially receive evidence unless it is properly sealed. If it is submitted in person, the request for these proper sealing techniques will be made *before* receiving. If received via any of the approved mail couriers, the receiving Crime Lab Specialist will perform what is called a seal check. He/she will initial and date the seals using the date the evidence first arrives at the lab. He/she will also write either "seal check" or "seal ✓" to indicate that the seal was in place and intact when received. If there is absolutely no seals/tape on the evidence, the Crime Lab Specialist will properly seal the cans using laboratory supplies and his/her own initials and the date of receipt. This will be noted in the case file. **Original agency initials and date are recommended** as it reduces questions for possible tampering.



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Outer boxes must also be sealed, initialed and dated. Following the same proper seal guidelines above, all cans in the same agency case must be submitted in the **same, properly sealed cardboard box**, when possible. Be sure to properly seal both the top and bottom of the box. Note also that the box is subject to the aforementioned seal check and proper seal procedures.

If multiple boxes are needed, please make sure this is indicated on the box: 1 of 2, 2 of 2, etc. This makes the **individual sealing of evidence cans** even more important. It is important to keep cans in the same case together as their shipping methods and tracking numbers are recorded not only in the lab file, but on the final analysis report. It is also important to retain all the original submission containers. Boxes shipped to the lab will have these tracking numbers from the courier service that provide custodial records for the evidence. Evidence returned to the originating agency will either be wrapped in brown paper OR placed into a larger box for shipping in order to preserve the unique case numbers assigned and all the original tracking numbers, initials, etc.

DO NOT REUSE BOXES FROM PREVIOUSLY SUBMITTED CASES. These boxes will have previously assigned SFMO FAL case numbers as well as initials and dates of previous investigators, Crime Lab Specialists, and Forensic Scientist. This makes it difficult to prove integrity of the evidence and leads to contamination questions in court.

Also, avoid using boxes with anything written or printed on the box that could further jeopardize the case in court. **Plain boxes are best!** Using boxes labeled with "paint," "flammable," or other such phrases leaves a negative impression to the jury about the integrity of the evidence. Even empty diaper, shredder or printer boxes leave this same negative impression and make the investigator's protocols appear questionable. If a plain shipping box must be re-used, choose one that has minimal writing/print on the outside and be sure to cross through, initial/date these markings.



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QUANTITY

The SFMO FAL does not have a limit to the number of cans that can be submitted in one case. However, the SFMO FAL's limit of cans that can be worked in a single work day is only about 24-30 cans. If an agency submits more than 10 cans in a single case, this case will be worked **last** in order to get as many cases completed in a single work day as possible. Also, if an agency must submit more than 5-10 cans, **please make sure the evidence comes from general and varied areas based on investigator knowledge of where best to collect.** For example, taking samples from a stairway does not make it necessary to collect samples from EVERY ONE of the 25 steps of that particular stairway. Keep in mind the repercussions of this in court: if step #1 & 5 are the *only* ones that come back positive, it becomes a more difficult testimony for the investigator and the lab both. Also, if all 25 cans come back negative, this is a conclusion that could've been drawn with 2-4 cans and not wasted time and resources to do so.

Actual evidence sample quantities should be no more than about $\frac{1}{2}$ to $\frac{3}{4}$ of the can. Space at the top of the can is needed for proper analysis. In regards to soil and mud, HALF a can is recommended for proper aeration of the evidence. Large pieces of clothing can be cut down or separated into individual cans. Before and after altering any items, take photos of the evidence to document the alteration.

Pure liquid samples should be submitted as **2-4 drops** on sterile gauze or sterile paper towels, tightly sealed in unused metal cans. **NEVER POUR large quantities of liquid** into an evidence can. Even half a teaspoon is too much and may contaminate other submitted evidence. Any liquid submitted that exceeds approximately $\frac{1}{2}$ cup in volume must be picked up in person. Due to federal regulations regarding the shipping of a flammable liquid, FAL will not ship the evidence back. Prior to putting drops of the liquid on gauze for submission to FAL, take photos of the liquid sample as a whole for documentation purposes.



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PHYSICAL SUBMISSION OF EVIDENCE

Evidence can be submitted either in person to the lab at 7915 Cameron Road, Austin, TX 78754 or by an approved courier with tracking capabilities. The accepted couriers are LoneStar Overnight, UPS Ground, and FEDEX Ground.

***Note only ground courier service can be used and NO US Postal Service methods are allowed.** It is against Federal Regulations to ship possible ignitable/flammable liquids via the US Postal Service or via air freight.

Make sure tracking numbers are always used for ease of location of evidence should it be misrouted as well as for maintenance of chain of custody. It is also an excellent way to uniquely identify the evidence from the outer packaging.

When shipping evidence to the lab, address the package to the attention of the **Forensic Arson Laboratory**. This ensures that the person who opens the box will be someone intended to be in the chain of custody and that the evidence will be stored into the proper vault immediately upon receipt. The package should be addressed as follows:

State Fire Marshal's Office
ATTN: Forensic Arson Laboratory
7915 Cameron Road
Austin, TX 78754

Contact phone number for courier should be 512-676-6801. Always use this physical address when shipping evidence to the lab and always provide a physical return address. Courier services have indicated they will no longer deliver to PO Boxes, even if a phone number is provided.

QUALITY CONTROL SUBMISSIONS

The SFMO FAL provides a quality control check of metal cans (& Kpak bags) to be used for collection of evidence. Cans should be submitted using the proper form found on the SFMO website:

<http://www.tdi.texas.gov/forms/sfmfirearson/sf009labcan%20.pdf>



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A lot number for these cans **is very important** as it is the key identifier to clear ALL cans of that lot for use in evidence collection. If a lot number is not available or cannot be located, serial numbers and even invoice numbers will suffice. Cans must be submitted properly sealed (as in actual case work) bearing the identifying lot # on the can itself. Identify each can submitted on the Quality Control submission form by their size and their lot #. The FAL will then process the can in the same way as evidence in regular criminal cases are processed and will determine if the can is suitable for evidence collection use based on the level of contamination or lack thereof.

Upon completion of this determination, a letter certifying the submitted cans will be emailed or faxed to the agency, **but only in the case that they ARE suitable for evidence use**. This effectively clears all cans in that lot number for use in criminal case evidence collection.

If the can DOES NOT pass due to high levels of contamination, etc., the submitting agency will receive an email regarding the issue and the lab will continue the process from there.

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Guidelines for Evidence Submission

Revision History

Revision Number	Approval Date	Approved by	Revision Notes	Effective Date
00	06/15/2015	Lab Manager	Initial Release	06/26/2015
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				

Prepared by: Emerald Nazareno

Date: 06/01/2015

Reviewed by: Bobbi Johnson

Date: 06/15/2015

Approved by: *Emerald Nazareno*

Date: 06/15/2015

Revised by: _____

Date: _____

Reviewed by: _____

Date: _____

Approved by: _____

Date: _____