

Fire Investigation

New policy number: **399**
Old instruction number: **ON102**
Issue date: **17 June 2005**
Reviewed as current: **17 July 2014**
Owner: **Assistant Commissioner, Fire Safety (Statutory and Community)**
Responsible work team: **Fire Investigation Team**

Contents

1	Introduction	2
2	Role of fire investigation officers (FIO)	3
3	LFB/Police liaison at fires of deliberate or suspected deliberate origin	3
4	Hydro-carbon detector dog (HCDD)	4
5	Rekindling's	4
6	Fire Investigation Unit, unavailable	4
7	Policies affected	5
	Appendix 1 - Fire investigation aide memoire	6
	Appendix 2 - Advice on scene preservation	7
	Document history	8

1 Introduction

1.1 Fire Investigation Units (FIUs) will be ordered to the following incidents in accordance with [Policy number 412](#) - Mobilising policy.

Pre-determined attendance

- 4 pump fires, and above - one FIU¹.
- Persons reported - one FIU.
- Firefighter Emergency
- Fatalities at fires - two FIUs.

Except rubbish, crops and field fires unless requested.

- Explosions - Inform FIU.
- On request for an ambulance from an incident where a fire related injury has occurred to a member of public (MoP) – inform FIU.

Requests from the incident commander

1.2 When incident commanders (ICs) request an FIU they should, whenever possible, provide Brigade Control with a telephone number where they can be contacted at the incident. The fire investigation officer (FIO) will either attend immediately or may contact the IC to provide advice such as scene preservation using either the contact number or via main scheme radio.

1.3 The FIO and IC will agree on one of the following:

- Immediate attendance.
- Deferred attendance.
- Data collection only.

1.4 The IC **must** request an FIU attendance:

- If the IC cannot determine the cause of a primary fire.
- For any serious injury to a MoP.
- If the IC is unable to determine the cause of secondary fire, this must be discussed post incident with the Fire Investigation Team. This enables constructive guidance to be given to aid future accurate recording.

Note: The cause must only be recorded as 'not known' by agreement with an FIO, or if a FIO is conducting an investigation and has not entered a motive or cause in IMS by the time the station has completed their record. In this instance the motive should be recorded as "not known" and the main cause field as "pending FIT findings".

- Any serious, fire related injury to MoP not covered by the above, request FIU.
- To a possible re-kindling from a previous Brigade attendance.
- If IC's are refused entry to an incident for the purposes of fire investigation they must request the attendance of an FIU. In addition, IC's should not take samples for fire investigation without the attendance of a FIU (**Note1**).

Note 1: The Fire and Rescue Services Act 2004 gave power of entry and power to take samples for obtaining information and investigating fires, to authorised persons.

1.5 An IC does **not** need to request an FIU if there is evidence that a fire is deliberate and assistance is not needed to determine the cause. The IC should request the attendance of the police for fire investigation and complete the report and recording form 1 (RRF 1).

- 1.6 You may request an FIU to contact you at any incident when you require support or advice at a fire scene.

2 Role of fire investigation officers (FIO)

- 2.1 On arrival, the FIO will report to the IC. The FIO will assess the level of FI resources and request them via the IC. The FIO may ask for:
- Additional FIUs.
 - A brigade scientific adviser or other specialist adviser to attend.
 - Assistance/equipment from fire crews to excavate the fire scene.
 - A senior fire safety officer.
 - FIU reliefs at protracted incidents.
 - Specialist appliances as necessary.
 - The FIU to be released or returned.
- 2.2 FIOs may decide to wear alternative protective clothing when all firefighting operations are completed, after consultation with the IC (if one is in attendance) and following a risk assessment.
- 2.3 FIO's will support the IC by working alongside police, forensic scientists and other official investigators at a fire scene.
- 2.4 FIOs will investigate fires to establish the most likely cause, defect, source of ignition, material first ignited and material responsible for development of the fire, as well as information on human factors and impairment by drugs/alcohol which they will enter onto IMS.
- 2.5 If the FIO completes their investigation promptly, this information will be entered in the fire investigation (FI) section of incident management system (IMS).
- 2.6 If the FIO cannot establish the cause immediately and further investigation is required, for example following the involvement of a brigade scientific adviser, the FIO will complete the FI section of IMS, when the information is available.
- 2.7 The IC remains responsible for ensuring the IMS record is completed promptly after the incident. Where an FIO is investigating the cause of a fire and has made no entries in the field, in 2.4 (in the Fire Information tab, cause/motive field) above, the motive is to be recorded as 'not known', the main cause as 'pending FI findings', the other fields set to 'not known' or 'no' as appropriate'. **Please note** that the investigation may be protracted, but other station based entry fields should be completed.
- 2.8 In the case of accidental fatal fires, FIOs will liaise with the Coroner's officer and prepare a detailed report for the Brigade. A copy will be submitted to HM Coroner's and/or Criminal Courts as required. In the case of a brigade fatality, external liaison will be via a senior accident investigator.
- 2.9 Detailed information on statements, scene preservation, and coroner's court procedure can be found on the FI web site: Hotwire > operations > fire investigation.

3 LFB/Police liaison at fires of deliberate or suspected deliberate origin

- 3.1 IC's will follow the protocols as listed within the fire & arson investigation memorandum of understanding, between the London Fire Brigade & Metropolitan Police Service, to ensure effective co-operation between services. This is available on the FI section of Hotwire.

3.2 As part of the liaison arrangements between the Fire Brigade and the police, LFB liaison report form RRF1 is carried on all front line appliances in the document folder provided. This form will provide the police with initial information for their investigation.

3.3 At any fire which involves the following:

- Serious, life changing injury;
- fatality;
- any deliberate or suspected deliberate nature.

The IC is to request the attendance of the police to record and investigate a possible crime scene. The IC must make sure that the form RRF1 is completed. The first page must be completed and handed to the Senior Police Officer, the carbonated blue copy is to be retained in the RRF1 folder at station, once the eFit section of IMS is completed.

3.4 The senior police officer will be responsible for conducting the investigation into the fire, in liaison with the IC and the FIO. This does not remove responsibility from the IC to make sure that the fire is extinguished.

3.5 Once a fire has been identified as being of deliberate or suspected deliberate origin, the police should be informed and no further unnecessary disturbance of the scene should be made without consultation. However, if the police officer in charge has no objection, the investigation should then continue. Brigade officers should be aware that once the fire has been extinguished, the police have authority for all activities at the scene of a crime.

4 Hydro-carbon detector dog (HCDD)

4.1 The HCDD team can conduct a rapid search of premises and the surrounding area to detect the presence of their target substances (usually ignitable liquid, or an ignitable liquid container).

4.2 The HCDD team will attend incidents where the following officers require the scene of the fire to be searched for traces of ignitable liquid, or an ignitable liquid container:

- FIO's.
- IC's.
- Metropolitan police officers or crime scene examiners, (via ILO if not a Brigade incident).

4.3 The HCDD handler will provide the FIO, IC and/or the police with a report/statement of the team's findings.

4.4 To enable the HCDD handler to assess suitability for the dog to be deployed, requests for the HCDD Unit must be accompanied by a contact number at the incident.

4.5 It is the responsibility of the HCDD handler to conduct a risk assessment and determine if it is appropriate to deploy the HCDD.

5 Rekindling's

5.1 In the event of a rekindling or suspected rekindling, the appropriate area deputy assistant commissioner, fire safety (statutory and community) principal managers and staff officers will be notified at the earliest opportunity. This will normally be done by the Fire Investigation Team

6 Fire Investigation Unit, unavailable

6.1 In certain specific instances, a senior fire safety officer (SFSO) will be mobilised to secure a fire scene, should no Fire Investigation Unit(FIU) be available. A FIU will be redeployed as soon as practically possible to relieve the SFSO.

6.2 They are as follows:

- Fatal fire
- Potential Rekindling's
- Serious fire related Fire-fighter injury
- 12 pump fires and above

7 Policies affected

Bibliography

7.1 This policy should be read in conjunction with:

- [Policy number 238](#) – Incident command procedures.
- [Policy number 215](#) - Gathering and recording information for presentation (GRIP).

Appendix 1 - Fire investigation aide memoire

A fire investigation unit will attend within the PDA¹:

- 4 pumps fires, and above.²
- Persons reported.
- Firefighter emergency
- Fatalities

¹Subject to availability.

²Except rubbish, crops and field fires unless requested.

A fire investigation unit will be informed of:

- A request for an ambulance from an incident, where a fire related injury has occurred to a member of public.
- Explosions.

The fire investigator will gather information from the incident and decide whether to mobilise or not.

You must request a fire investigation unit when:

- You cannot find the cause for a primary fire.
- Serious fire related injury to a MoP or fatality (even if self inflicted and/or casually removed).
- A possible re-kindling has occurred after a fire previously attended by the brigade.
- You are refused entry to an incident for the purpose of fire investigation or need to take samples.
- Any serious fire related injury to MoP not covered by the above

You may request an FIU to any incident when you require support or advice at a scene.

You may request the Hydro-Carbon Detector Dog :

- When you require the scene of the fire or surrounding area to be searched for presence of an ignitable liquid, or an ignitable liquid container.

When you request a unit:

Either:

- Provide a contact telephone number at the incident.

or:

- Monitor parent channel for a request for talk through by the mobilised FIU. This will provide you with immediate advice and will save you time.

Appendix 2 - Advice on scene preservation

1. On arrival

The list below is examples of indicators that crews should note on arrival:

- Which part of the building appeared first involved?
- The colour of the smoke and flames?
- How did the fire react when attacked?
- Were there any explosions?
- Unusual odours?
- Weather conditions?
- Was there a rapid fire spread?
- Were doors and windows open, closed or with any signs of a forced entry?
- Fire/Intruder alarms sounding?
- The behaviour of persons in and around the area?
- Recognition of person(s) from previous incidents?

2. During initial firefighting

Good firefighting practice:

- If conditions permit, minimise firefighting personnel inside the affected area.
- Limit water damage - fine spray will help preserve the scene, but ensure fire is extinguished.
- Note any items moved or removed.
- Note any persons entering the scene for later elimination purposes.

3. After initial firefighting

During and after firefighting operations:

- If a body is found and is apparently dead - then leave in-situ.
- Record the locations and movements of all other persons involved.
- Don't disturb the room contents or debris, as you will destroy forensic evidence.
- If the use of an accelerant is suspected, restrict the movement of personnel in and around the affected area.
- Do not start cutting away or turning over until directed to do so by a FIO.
- Turn fuse-board off rather than remove fuses, if not possible number fuses. Record position of circuit breakers prior to switching off or isolate via main switch.
- Do not leave any items at the scene including brigade water bottles as it can be misleading to the police.

Further information is available on Hotwire > Operations > Fire Investigation

Document history

Assessments

An equality, sustainability or health, safety and welfare impact assessment and/or a risk assessment was last completed on:

EIA	14/09/2008	SDIA	11/09/2013	HSWIA		RA	
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Audit trail

Listed below is a brief audit trail, detailing amendments made to this policy/procedure.

Page/para nos.	Brief description of change	Date
Page 3	New way of reporting – from Fire Reports Section to Information Management System (IMS). Change of form from FS/FIT/1 to Report and Recording Form 1 (RRF1).	17/08/2009
Throughout	The review date on this policy has been extended.	30/01/2013
Throughout	This policy has been updated with new inserts throughout. Please read to familiarise yourself with them.	22/04/2013
Throughout	This policy has been updated please read to familiarise yourself with the content.	06/09/2013
Page 8	EIA date has been added to this policy.	11/09/2013
Page 5 Throughout	Rekindling's & FIU not available added. Reviewed as current, policy updated throughout, please read to familiarise yourself with content.	17/07/2014
Page 8	Subject list and FOIA exemptions tables updated.	22/12/2014
Throughout	Top management review changes made, Fire Safety Regulation Department replaced with Fire Safety (Statutory and Community).	24/08/2015
Page 1	Owner title changed to reflect the changes in organisational structure and governance due to the abolition of the London Fire and Emergency Planning Authority, now replaced with the London Fire Commissioner.	11/01/2019

Subject list

You can find this policy under the following subjects.

Fire investigation	

Freedom of Information Act exemptions

This policy/procedure has been securely marked due to:

Considered by: (responsible work team)	FOIA exemption	Security classification marking