

Fire investigation reports workshop 20 May 2010 workshop summary report

Fire Research Series 32/2011

This research was commissioned by the previous government and is not necessarily a reflection of the current government's policies and priorities.

DCLG is publishing this report in the interests of transparency.

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1 Introduction

1.1 Background

Fire and rescue services undertake fire investigations and complete reports. Many of these reports contain valuable information which could be used nationally. The Department for Communities and Local Government (DDCLG) and Chief Fire Officers Association therefore sponsored a workshop to discuss how information from fire investigations could be better used. The workshop would be open to various stakeholders and interested parties and not just the Fire and Rescue Service.

As well as generally discussing the topic of fire investigation reports, the workshop considered such things as how and when fire investigation reports are currently produced, suggestions for improving the consistency of reports, how best to collect them and what elements/subjects to analyse and how we communicate the results.

Before the workshop is held it was agreed that a questionnaire should be sent out to each Fire and Rescue Service in England asking for feedback on what fire investigation reports they are currently collecting, what type of information they generally contain and any views on what they would like to be covered in the workshop.

The workshop was administered by Greenstreet Berman Ltd who:

- identified speakers and agreed presentations
- administered the delegates and venue
- circulated and assessed the questionnaire
- produced workshop topic guides
- facilitated small group sessions; and
- produced this report.

This report provides a summary of the workshop and associated questionnaire.

1.2 Attendees

A total of 70 delegates attended the workshop. Delegates were from 33 different Fire and Rescue Services¹, DCLG and other types of organisations including:

- AXA insurance
- Better Regulation Executive
- Canterbury Christchurch University
- FIRAG
- Fire Protection Association
- Fire Service College
- Ministry of Defence (MOD)
- Teesside University.

¹ For a full list of Fire and Rescue Services that attended the workshop see Appendix

2 Questionnaire results

2.1 Introduction

A short questionnaire was distributed prior to the workshop in order to acquire some initial data to allow for better understanding of the following issues:

- what data is collected during fire investigation
- how this data is recorded and stored
- how this data is used
- who this data is shared with; and
- if any other methods of investigated fires are being used.

The questionnaire was given to key fire investigation personnel in each of the 46 Fire and Rescue Services in England. Questionnaires were also given to the three Welsh Fire and Rescue Services and one Scottish Fire and Rescue Service personnel who had confirmed they would be attending the workshop.

Of these, 30 completed questionnaires were returned.

2.2

2.3 Results

2.3.1 Types of incidents investigated

All respondents said that their Fire and Rescue Service produces fire investigation reports. The extent to which different types of incident were investigated, differed per Fire and Rescue Service as Figure 1 illustrates.

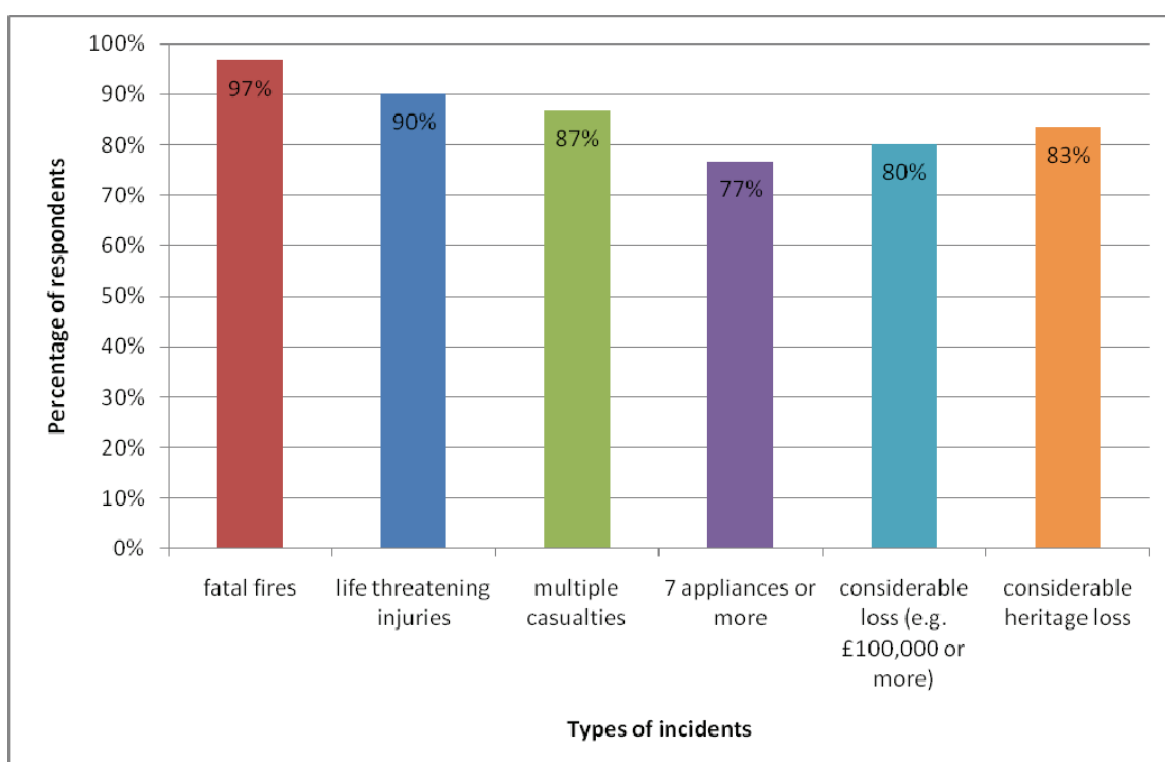
The vast majority of respondents said they investigated those fires which had fatalities (97%), had produced life threatening injuries (90%) or had multiple casualties (87%). In the case of fatal fires, the remaining 3% of respondents reported being unsure as to whether these types of incident were investigated.

A considerable majority of respondents said their Fire and Rescue Service would investigate fires involving 7 appliances or more (77%), where there was considerable loss worth £100,000 (80%) or more or where there was considerable loss of heritage property (83%).

The other types of fires which respondents said their Fire and Rescue Services would investigate included:

- fires involving premises to which in excess of five pumps had been deployed (other than for water relay purposes)
- any on request of the police, a group manager of the locality or a principal manager
- following a recall to the same address within 12 hours of a previous fire
- where the cause of fire is likely to be returned and remain as unknown and the incident is of particular interest
- fires in premises with engineered solutions
- fires involving county council, school or public buildings with significant loss/damage
- arson related fires where it is likely that the incident will result in a criminal court case
- where fire fighters have been injured
- incidents of concern to the local community, e.g. series of car fires in an area where racial tensions are running high.

Figure 1: Percentage of respondents who would investigate and produce reports for different types of incidents

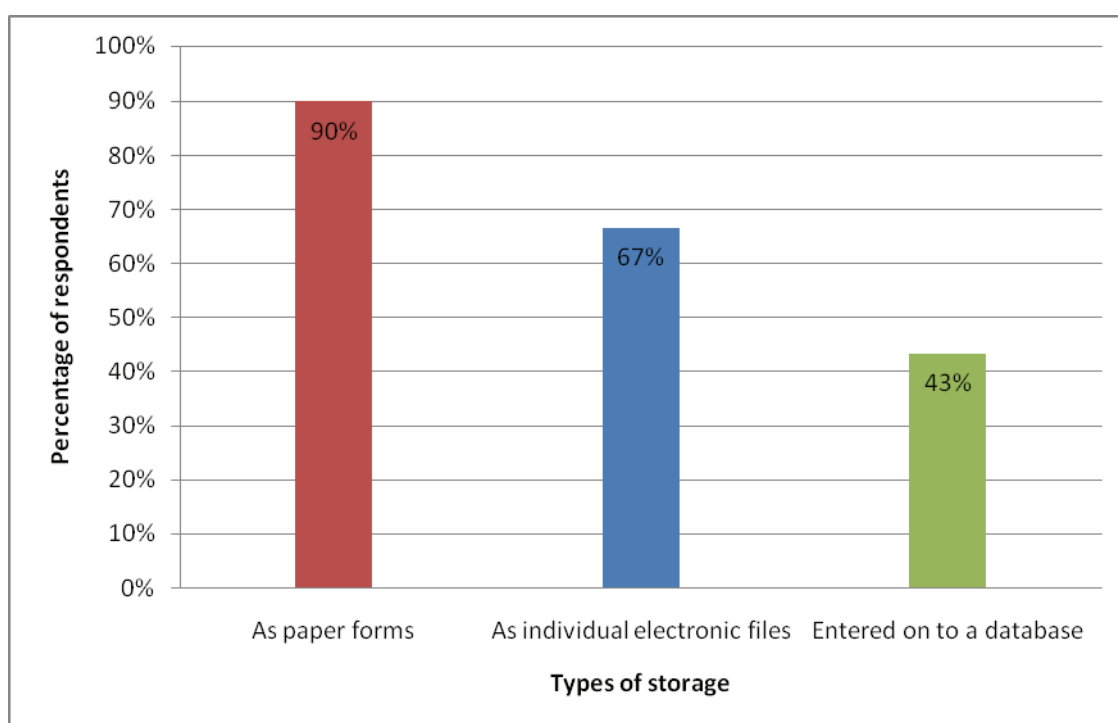


2.3.2 Fire investigation reporting

The majority of respondents said their Fire and Rescue Service store their fire investigation reports as paper forms (90%), 67 per cent of respondents store them as individual electronic files, 43 per cent of respondents said they enter their fire investigation reports into an electronic database. Figure 2 illustrates the types of formats used.

Some respondents reported using more than one format for storing incidents with 30 per cent of them using paper forms, individual electronic files and database formats. Twenty-seven per cent of respondents reported that they used both a paper format and individual electronic files but did not use a database and 13 per cent of respondents use a database and store fire investigations in paper format.

Figure 2: Different forms of recording and storing fire investigation reports



Taking the number of reports which respondents said their Fire and Rescue Services produced in a year and averaging this across all Fire and Rescue Services showed that on average each Fire and Rescue Service produces 88 fire investigations annually which means that an estimated ~4000 reports being produced annually by the English Fire and Rescue Service as a whole.

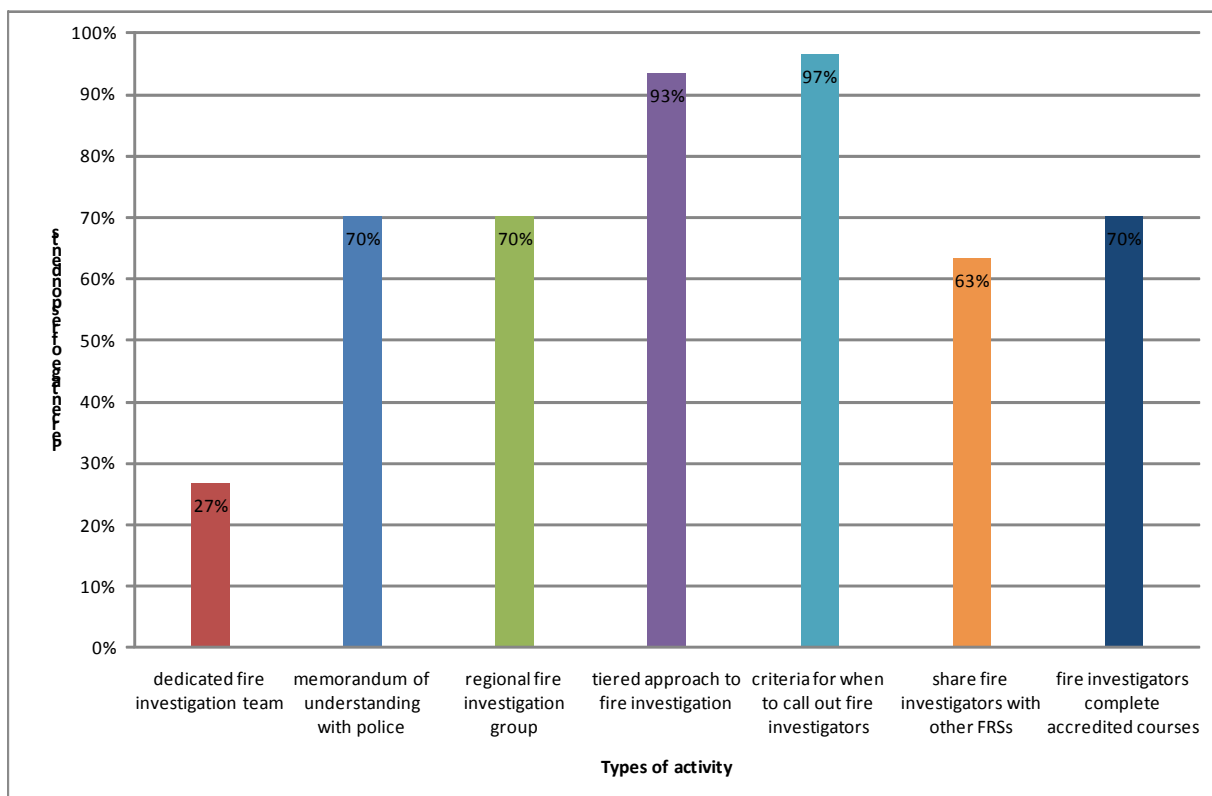
2.3.3 Fire investigation related activity

As Figure 3. Fire investigation related activities which Fire and Rescue Services have or do there are dedicated fire investigation teams in almost a quarter of respondent's Fire and Rescue Services (27%), but most Fire and Rescue Services still require that any fire investigators should have some sort of fire investigation accreditation in addition to their other responsibilities within their Fire and Rescue Service (70%).

A moderate majority of respondents said they were part of a regional fire investigation group (70%) and a similar majority said they shared fire investigators with other Fire and Rescue Services (63%). Of the 21 respondents who were part of a regional group, 60 per cent of these said they were sharing fire investigators.

Most respondents said they used a tiered approach to fire investigation (93%) and even more respondents said that they had a standardised criterion for when to call out fire investigators (97%) dictated by the types of incidents discussed in Section 2.3.1. Seventy per cent of respondents have a memorandum of understanding with the Police Service.

Figure 3. Fire investigation related activities which Fire and Rescue Services have or do



2.3.4 How fire investigation data is used/shared

Depending on consideration and satisfaction of the Freedom of Information and Data Protection acts, some Fire and Rescue Services are open to share of the information with whoever requests it, however, one Fire and Rescue Service stated that they were not willing to share data with anyone. Besides sharing with partners, many respondents said the data was used internally to inform trends and hotspots with regards to arson mapping, informing community fire safety strategies and informing future fire fighting tactics contained within then once collected

Other Fire and Rescue Services were more specific in reporting the types of partners they would share data with and the ways in which they use fire investigation data:

- other Fire and Rescue Services in the region
- the Police Service and forensics, in providing evidence in deliberate cases
- Crown Prosecution Service and judicial defence teams during court cases
- HM Coroner to determine circumstances surrounding a fatality
- insurance companies, private investigators and property owners, on request/payment, to assist in the investigation of insurance claims
- local community safety initiatives and other relevant services in the formulation and modification of safety drives
- given to performance and audit departments to contribute to local and national statistics and trends
- public groups such as child protection unit, social housing etc.

2.3.5 Alternative methods of reporting fire investigation

The majority of respondents reported that they did not use an alternative means of reporting fire investigation other than the methods they had reported in Section 2.3.2 (57%). Responses from the 43 per cent of respondents who said they used an alternative mechanism are largely anomalous, however, as most respondents either repeated their previous answer from an earlier section in the questionnaire (paper, electronic or database format) or they said they used the incident recording system for basic level 1 incidents despite the question specifying that they exclude the incident recording system from this answer. Those few respondents who answered correctly said they had developed bespoke fire investigation reports for their local needs.

2.3.6 Mini-questionnaire conclusions

Overall, many Fire and Rescue Services are using fire investigation reports for the same things, such as informing service strategies and statistics, assisting the police service and the judicial system in criminal investigations and providing evidence to support/refute insurance claims. While there are a high number of reports produced on average per year, there are few dedicated fire investigators.

In conclusion, most Fire and Rescue Services are investigating the same kinds of incidents and are using their own standard pro-forma of mostly either paper and/or electronic format, although there is little or no standardisation of these reports across the Fire and Rescue Service as a whole with the specifics within each Fire and Rescue Services pro-forma differing and there is no nationally standardised criterion for which incidents to investigate.

3 Workshop presentations

Five presentations were made by invited speakers during the workshop. These included:

Presentation	Speaker	Organisation
Investigating human factors of fatal fires	David Townsend	Institute of Fire Engineers
Arson Investigation: Hampshire Arson Task Force	Steve Quinn	Hampshire Fire and Rescue Service
Fire investigation degree	Lee Aspery	County Durham and Darlington Fire and Rescue Service
Case study: Investigation of Scottish fatal fires	Paul Steward and Cathy Barlow	Strathclyde Fire and Rescue Service
Regional fire investigation: Experience of South East Region	Bryn Strudwick and David Wales	Surrey Fire and Rescue Service Kent Fire and Rescue Service

Below is a brief description of each of the five presentations.

3.1 Investigating human factors of fatal fires

This presentation gave an overview of some of the typical human factors that are associated with fatal fires. Some of the key human factors noted were:

- mental illness in young adults
- schizophrenia – medication people are on has side effects that cause problems relating to fire
- age
- those that hoard

- those with poor lifestyles
- those that lack support; and
- physical disabilities.

It was noted that one of the main barriers in being able to access some of these types of people is not being able to engage with social services. One of the main challenges raised by the group was whether the Fire and Rescue Service are maximising the impact on others agendas.

3.2 Arson investigation: Hampshire Arson Task Force

This presentation focused on the Hampshire Arson Task Force and how they went about establishing the Arson Task Force in Hampshire. In setting up the Arson Task Force they implemented the following strategies:

- trajectory management and continuous improvement
- new team, new approach, new culture
- target previous partnership strengths and weaknesses; and
- achieving some quick wins.

One of the success factors was the separate branding of the Arson Task Force from both the Fire and Rescue Service and the police. The results of the Arson Task Force were impressive leading to a ~90 per cent conviction rate in Hampshire now since the introduction of the Arson Task Force.

3.3 Fire investigation degree

This presentation detailed the Foundation Degree: Fire Scene Investigation that is now available. Durham and Darlington Fire and Rescue Service were the project leads and designers of the course. The course is held at Teesside University and uses the facilities at the National Policing Improvement Agency and SERCO (International Fire Training Centre)

The strategic aim of the degree is to develop motivated investigators to deliver effectively. The objectives of the course are to:

- develop skilled and professional investigators through continuous personal and professional development; and
- optimise the achievement and contribution of the student investigators in a rewarding, challenging and safe environment.

The course costs between £1500 - £1700.

3.4 Case study: Investigation of Scottish fatal fires

The presentation detailed the findings from an investigation into Scottish fatal fires. A survey template was used to collect data on:

- property
- location
- incident
- victim
- human involvement; and
- other relevant information.

The results indicated that:

- that the majority of fatal fires in Scotland were accidental dwelling fires
- there were more male fatal fire victims than females
- the main cause of fatal fires was smoking materials
- the living room was the main room of origin in fatal fires
- the majority of fatal fires in Scotland did not have a smoke detector that actuated
- three of the main confirmed contributory factors were smoking, alcohol use and drug use.

The findings of this work were used to inform the Scottish Government's strategy on the way forward in tackling fatal fires in Scotland Together.

3.5 Regional fire investigation: Experience of South East Region

This presentation detailed the South East Regions approach to fire investigation. Nine Fire and Rescue Services collaborated to establish a South East Region Fire Investigation Group (SEFIG). The regional approach involved combining elements of all fire investigation strategies from all nine Fire and Rescue Services. The process removed elements of fire investigation that did not work well and combined elements that did to produce one standardised process for the recording and reporting of fire investigation outcomes.

The presentation noted that this regional approach has worked and has achieved significant progress in one year without budget or dedicated resources. The presentation detailed what would need to happen for a national approach to work together with some of the potential benefits of a joint working approach to fire investigation, including efficiency savings for Fire and Rescue Services.

4 Workshop small group sessions

4.1 Workshop 1

Going beyond Fire Damage Report 1/incident Recording System – investigating mental illness, alcohol, drugs, role of care agencies and other factors in fatal fires

What else could be collected on, a person's involvement with care agencies and a person's social/behavioural/medical circumstances that could have contributed towards a fire

Delegates listed some different options on what else could be collected as part of fire investigation, these included:

- other details relating to the person, such as:
 - mental health
 - physical disabilities
 - deprivation
 - whether they smoked
 - were they a hoarder
 - drug and alcohol use.
- details on other people in the household
- details on the household profile including others date of birth within the household
- names of potential witnesses
- key lifestyle indicators such as alcohol and drugs
- medication the casualty was taking should be recorded
- whether or not there has been a recent lifestyle change – such as quitting smoking or loss of employment
- whether the individual has had previous contact with other care agencies
- whether or not the household had been involved in any previous fires
- whether or not they had had a home fire risk check and whether the property was rated as high risk.

Delegates noted that further information could be gathered from:

- other emergency services
- care agencies
- friends
- local authorities services
- charities, such as meals on wheels.

Delegates noted that the human behaviour of the individual should be recorded, such as:

- whether they tried to escape
- Did they ring 999?
- Did they hide from the fire in the house rather than escaping/
- Did they have any disability that might have prevented them from escaping from the fire?
- What room was the casualty found in?

Delegates thought that a standard letter needs to be sent out to care agencies to engage them in the issue of fire safety in the home. Others noted that there should be a risk assessment sent out to other care agencies to fill in on fire safety in the home.

What other information not previously mentioned could be collected to support fire safety work within Fire and Rescue Services?

Delegates noted that having the correct data allows them to target more effectively.

The type of premise was also noted as being useful to collect such as whether it was a sheltered scheme or supported living. Other information that could usefully be collected as noted by delegates included:

- outstanding enforcement
- whether the building was suitable for the 'victim' (for example were they in sheltered accommodation)
- previous community fire safety activity
- ethnicity
- whether the premise was compliant with regulations
- impact of current legislation
- how fire safety regulations performed in a fire
- whether the area was a previously identified high risk area.

What would be the practical implications of gathering the information discussed previously?

Delegates noted that data collection would need to be consistent across the country. Questions were raised about:

- Who would put the data into a database?
- the skills of the fire investigators in being able to collect this additional information
- how to communicate effectively with other care agencies
- sensitivity of the data (issues relating to confidentiality)
- legal boundaries
- the cost vs. benefit would need to be explored.

There were concerns of recording data from 'free text' boxes. It was also noted that standard terminology would need to be used throughout the fire service. Concerns were raised generally about the cost and the time implications of collecting this type of data.

4.2 Workshop 2

Arson investigation: developing investigation practice

What information could be collected to support arson investigation?

Delegates perceived this question in two ways. Some delegates answered the question in terms of who they would like information from, including such things as:

- national intelligence systems
- organisations such as Better Regulation Executive; and
- other agencies such as police.

Delegates also attempted to list specific types of information they would like such as:

- history of people and situation
- preliminary actions of the fire service and crews
- previous failings on behalf of owners

- witness testimony
- fire alarm and room scanner activity
- scene (including any physical evidence such as 'physical fit'); and
- findings from detector dogs or any other sensory device.

What are the practical challenges of collecting this?

Delegates agreed the many barriers to collecting this data where:

- fire investigation not being their dedicated job and the time and cost constraints which coincide with this
- legal barriers such as whether fire and rescue services have the power of entry
- communication and storing of information between and within agencies
- the sustainability of the scene; and
- getting the police to "treat arson as a crime."

What would a good fire service/police collaboration look like?

All delegates said that the Hants model which was presented earlier in the day was a model example of good fire service/police collaboration. From this delegates said that it was important that there were shared aims, resources outcomes and outputs with joint training and tangible agreements between agencies. To ensure resiliency of the relationship it is important to use shared language and terms. Delegates also said that branding was important to make any joint working group separate from both the fire service and police. There needs to be strategic buy-in from both organisations.

What level of arson investigation would you apply to different types of fire?

Delegates thought all fires should be investigated as one can not anticipate that a fire is arson until it has been investigated. One small group made a hierarchy of fire types with level 1 fires being investigated/ reported by first responders and input into the incident recording system. Level 2 and 3 Fires, they thought, should be dealt with by specialist Fire Investigators.

4.3 Workshop 3

Investigating abnormal fire spread and related issues

Definition of abnormal fire growth

The session initially focused on defining what is meant by abnormal fire growth. The discussion revolved around examples such as:

- fire defeating the compartmentation before its stated fire rated period
- breaching the room of origin in fire engineered buildings
- unexpected fire growth.

Delegates offered the following definitions:

- a fire which developed, either within a compartment or throughout a premise, beyond expected norms as prescribed by research and known documented case studies
- the unexpected or unnatural behaviour of a fire in a given situation
- any fire that is significantly influenced by external or additional conditions.

It was commented that once an abnormal fire has occurred a few times, it will no longer be unexpected and so stops being abnormal. In this way, examples of abnormal fires are transient in time. It was noted that large or uncontrolled fires are not necessarily abnormal. A large fire may occur in a building that complies with building regulations.

Fires that might be associated with abnormal fire growth were thought to include those where there is unusual fire loading, failure of active or passive fire precautions and breaches of compartmentation.

Investigation of abnormal fires

Whilst some delegates said that there were no differences between the investigation of normal and abnormal fires, others noted that investigation of abnormal fire growth would place greater focus on the factors contributing to fire spread as opposed to the cause of ignition. It would need to explore the materials of construction, compliance with building regulations and fire safety regulations, breaches of compartmentation and so forth. In some cases, some delegates cited the use of reconstruction and computer modelling to understand abnormal fire growth. Finally delegates judged that sharing reports between fire services would support investigation of abnormal fire growth.

It was noted that the incident reporting system flags up abnormal fire growth, which could be used as a trigger for additional investigation.

National reporting

It was generally agreed that reports on abnormal fire growth do need to be shared across fire services to support fire fighting, health and safety and fire safety. Indeed, it was suggested that an alert system is needed, to alert Fire and Rescue Service to the risk of abnormal fire growth in certain types of buildings. The FINDS system was not considered fit for the purpose of alerting Fire and Rescue Services to abnormal fire risks.

It was also considered important to report where abnormal fire growth has been successfully contained, so that positive lessons can be shared across Fire and Rescue Services. This could be something similar to the Communities of Practice website/forum.

Delegates suggested that one organisation should be responsible for collating these reports and disseminating lessons. Whilst this could be DCLG it was recognised that much could be done by the sector and indeed that any new national system would need to be considered in the light of additional data burdens. A central focus is needed to avoid repetition of analyses between Fire and Rescue Services. Also a single format is required that ensures that Data Protection issues are addressed.

In addition, delegates cited a need to an “escalation procedure”. This would be a procedure for escalating issues up nationally for national level review.

Uses of reports

Analyses of abnormal fire growth were thought to offer the following uses:

- feedback to fire fighters on operational procedures and tactics
- feedback to create more realistic fire tests of materials and construction techniques.

Analyses of abnormal fires should be shared with:

- building regulations
- manufacturers
- installers – to ensure they do not breach fire compartmentation
- insurers
- trading standards
- Fire Protection Association
- fire guides
- local fire strategies
- operational procedures

- 7.2d procedures.

4.4 Workshop 4

Learning lessons on fire fighting

What are the criteria for looking at fire fighting procedures?

Delegates listed a number of criteria for looking at fire fighting procedures/tactics including:

- fatalities
- special building (e.g. heritage)
- customer complaint or litigation
- high loss or significant impact
- fire fighter accident or accidents under the reporting of injuries, diseases and dangerous occurrences regulations
- equipment failure
- fire of special interest
- poor scene investigation
- abnormal fire spread or to another building
- new dimension/terrorism
- pattern/trend (e.g. high rise)
- poor scene preservation hampering investigation
- building design problems
- failure to follow standard operating procedures (sops)
- ops monitoring (e.g. unusual time taken to extinguish)
- large financial loss
- near misses.

How can fire fighting procedures be investigated?

The delegates suggested a number of methods that could be used to investigate fire fighting procedures. All the groups suggested that interviewing crews as part of the de-brief was one of the main methods that could be used, as well as interviewing witnesses. Another method suggested was CCTV either on the appliance or where evident on surrounding buildings or structures to the fire or internal CCTV sources. However some delegates mentioned that CCTV was not used on appliances consistently across all Fire and Rescue Services. They did suggest that the incident log is consistently used across Fire and Rescue Services and this was a useful source of information for investigating fire fighting procedures.

Analytical risk assessments, post fire investigation, scene investigation, physical evidence and insurance feedback could also be useful information sources for investigating fire fighting procedures.

How would your Fire and Rescue Service make use of this information?

The delegates suggested a number of methods in which they would make use of the information such as informing training (training needs analysis) and awareness and health and safety and operational bulletins. They also stated that they would use this information for personnel development including disciplinary proceedings.

They stated they would use it for local, regional and national guidance development as well as for procedural review and regional/national promulgation (the act of formally proclaiming or declaring a new statutory or administrative law as in effect after it receives final approval). Also it was suggested that it could be used for equipment review/ kit review.

4.5 Workshop 5

What information could be usefully collated at a national level from fire investigation?

What information could usefully be collected at a national level from fire investigation?

Delegates noted that information on characteristics of the home and people within would be useful to collect, such as:

- age - particularly if they are old
- property structure
- property ownership
- socio-economic status
- medication
- disabilities
- alcohol use
- other lifestyle factors
- other socio-demographic factors.

Other suggestions included:

- presumed ignition
- probable cause; and
- unusual development of the fire
- defective appliances causing the fire
- fires involving fatal or serious injury to a fire fighter.

There was some discussion in the group on the role of the fire investigator. Some delegates noted that their role (as fire investigators) is to record origin of fire and probable cause of fire and not to record the wider social issues. Delegates noted that fire investigators are reluctant to record information that is not factual.

What format should Fire and Rescue Services provide information nationally?

Some delegates said that for a national collection somebody would need to specify what information they wanted and the fire investigators would then comply and collect that data. Other delegates thought that a template would need to be created in order for the data to be collected in a standardised format. Others thought that a database would be the best format to provide data to for a national system.

If there was a national summary produced what information collected should be included

Key information should be provided on origin, cause and spread. Others noted that details of individuals should be included. However, the delegates added that the information to be provided depends on the intended audience of the information collected. There was a point raised that whatever is collected and reported should not be the same as what they are already recording as part of incident recording system. Concerns were also raised about sharing data due to data protection.

4.6 Workshop 6

What fires should be investigated and reported nationally

Small group exercise: What are the types of fires that you might want to investigate? (5 minutes)

Delegates thought that all fires needed to be investigated; the question was to what extent each fire should be investigated.

The list of fires which delegates mentioned included:

- fatal or life threatening fires
- any fire deemed to be suspicious or where there was unusual fire dynamics
- fires where five pumps or more were required
- fires where there was substantial financial loss
- fires of “special interest;” and
- also fires with possible racial motives.

QUESTION 1

How many of these would your Fire and Rescue Service need to report on each year? (10 minutes)

This was said to differ between services, as delegates all said that the number of reports provided in the questionnaire which preceded the workshop was the best estimate for how many fire needed to be reported each year.

Delegates did agree that it is more valuable to recognise trends over a course of years rather than relying on the previous year's data to estimate how many needed to be reported on.

QUESTION 2

Are there any issues relating to practicality of reporting these fires nationally each year? (15 minutes)

Delegates said that there are resourcing issues with regards to allowing there to be dedicated fire investigators and standardising IT across the service. There are also said to be training issues in providing accurate and standardised reports.

These practicalities are said to be similar to issues that have been had with the incident recording system.

QUESTION 3

What would you have to do differently to report a full list of fires? (15 minutes)

Delegates said crews would have to be trained on how to report fires. The incident recording system would have to be modified to allow for free input of information without restricting to particular categories.

There would have to be changes to individual services' IT capabilities and software with standardisation across all systems.

Delegates also said there would have to be full time fire investigators.

4.7 Workshop 7

How can the results from a national approach to fire investigations be best communicated?

The delegates queried in the case of this question what was meant by a “national review” and whether this was a review of data collected or the data collection process. The questions have been answered from both perspectives.

QUESTION 1

What methods of communication could be used to communicate results from a national approach?

Delegates discussed a number of forms of communication that could be used to communicate results of a national review such as:

- cascaded through chief fire officers association
- database of contacts
- finds (although this is not up to date)
- DCLG bulletins or website
- institute of fire engineers website (although a number of the delegates were not members and so were unsure if this was the best route)

- You Tube
- regional forums
- circulars
- working groups
- website
- press/ads campaigns
- industry/specific publications.

QUESTION 2

What should be communicated?

Delegates had a number of suggestions for what should be communicated including:

- any plans for nationalisation or standardisation from the national review
- common practice
- ideas or methods for interoperability across fire and rescue services
- key issues summary.

4.8 Workshop 8

National standardisation of the fire investigation

Should Fire and Rescue Services agree on a standardised report?

It was generally agreed that Fire and Rescue Services should agree a standard approach to fire investigation even if this required compromise on its content. There was felt to be a case for sharing results that requires a more consistent format. In addition, some delegates noted that prosecutions, such as for arson, has failed on occasion due to the poor standard of fire investigation.

It was noted that the police service has a nationally agreed approach to investigation.

What would need to happen to implement a standard approach?

The main barrier was considered to be the will to change. Senior management of Fire and Rescue Services would need to agree to collaborate. This in turn requires a business case. The business case could relate to the potential for improved cost-effectiveness and efficiencies achieved by sharing of fire investigation resources, facilitated by a common investigation approach. The business case could also cite:

- the benefits of sharing expertise between fire and rescue services
- the benefits from sharing lessons learnt
- improved convictions of arsonists and other offenders
- meeting coroner's needs.

It was suggested that Chief Fire Officers Association need to continue to provide leadership in achieving a common fire investigation process.

Notwithstanding the need for a business case, it was noted that Fire and Rescue Services have adopted GN4 (fire safety inspection procedures) and so should be able to agree a common approach to fire investigation.

Could the south east region be used as a model?

It was uncertain whether the South East regions approach to fire investigation was the best model without examining it in greater detail and comparing it with practices in other Fire and Rescue Services.

Common elements of a standardised approach

Some elements of a common approach would include:

- criteria for when to investigate, matched to level 1, 2 and 3 investigations
- scene preservation
- best evidence model
- protocol for collaboration with the police
- training
- quality assurance procedures
- outputs from fire investigation.

5 Plenary: Next steps

Steve Hamm of Chief Fire Officers Association led a plenary session where he laid out next steps including:

- Creation of a Chief Fire Officers Association fire investigation strategic steering group with 1 Fire and Rescue Service representative per Chief Fire Officers Association region and three stakeholders in total from:
 - insurers
 - ACPOA or Crown Prosecution Service
 - forensic science
 - coroners
 - Ministry of Defence.
- Having a meeting in the summer of 2010 to:
 - agree terms of reference and governance
 - start to develop an output specification for fire investigations;
 - laying out a work programme.

6 Appendix A

6.1 Mini-questionnaire

Section 1: Fire investigation reports: types of incident investigated

1. Does your Fire and Rescue Service produce fire investigation reports?

Yes ☐

No – go to question 3 ☐

2. Please list the type of incidents that your Fire and Rescue Service would investigate and produce a report for? (Then go to question 4)

	Yes	No	Do not know
Fatal fires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fires involving life threatening injuries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fires involving multiple casualties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fires involving 7 appliances or more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fires resulting in considerable loss (e.g. £100,000 or more)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fires resulting in considerable heritage loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please briefly describe any other types of fires for which your Fire and Rescue Service produced reports for (excluding the incident recording system):

3. Could you please tell us briefly why your Fire and Rescue Service does not produce fire investigation reports? (Then go to question 10)

Section 2: Fire investigation reporting

4. Does your Fire and Rescue Service use a standard pro-forma for its fire investigation reports?

No ☐

Yes ☐ (Could you please send us a blank example of your pro forma)

5. How does your Fire and Rescue Service store its Fire Investigation Reports? (tick all that apply)

- | | |
|---|--------------------------|
| a) As paper forms | <input type="checkbox"/> |
| b) As individual electronic files (one per report) in a shared area | <input type="checkbox"/> |
| c) Entered on to a database | <input type="checkbox"/> |
| d) Other (please describe below) | <input type="checkbox"/> |

Describe here

6. How many reports are written on average per year? (write in number)

Number of reports per
year

7. Please indicate if you have or do the following (tick appropriate boxes):

	Yes	No	DK
A dedicated fire investigation team in your Fire and Rescue Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Fire and Rescue Service has a memorandum of understanding with the police service (covering fire investigation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Fire and Rescue Service is part of a regional fire investigation group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Fire and Rescue Service uses a tiered approach to fire investigation, such as Level 1 basic, Level 2 Intermediate, Level 3 Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Fire and Rescue Service has criteria for when to call out specialist fire investigators, e.g. all fatal fires, fires with multiple casualties, fires causing over £1000,000 loss etc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Fire and Rescue Service shares fire investigators with other Fire and Rescue Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Require dedicated fire investigators to complete credited investigation course(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 3: Fire investigation reports: using the information from the reports

8. What are the results of Fire Investigation Reports used for?

9. Do you share your Fire Investigation Reports and if so with who?

Section 4: Other ways of investigating fires

10. Apart from Fire Investigation Reports does your Fire and Rescue Service use any other mechanisms for investigating and recording incidents (excluding incident recording system)?

No ☐

Yes ☐ Please briefly describe below what these are below

Describe here

7 Appendix B: List of Fire and Rescue Services that attended workshop

Avon Fire and Rescue Service

Bedfordshire Fire and Rescue Service

Berkshire Fire and Rescue Service

Cheshire Fire and Rescue Service

Cleveland Fire and Rescue Service

Cornwall Fire and Rescue Service

Cumbria Fire and Rescue Service

Derbyshire Fire and Rescue Service

Devon and Somerset Fire and Rescue Service

Durham & Darlington Fire and Rescue Service

East Sussex Fire and Rescue Service

Essex Fire and Rescue Service

Greater Manchester Fire and Rescue Service

Hampshire Fire and Rescue Service

Hereford & Worcester Fire and Rescue Service

Kent Fire and Rescue Service

Leicestershire Fire and Rescue Service

London Fire and Rescue Service

Lothian and Borders Fire and Rescue Service

Mid and West Wales Fire and Rescue

Service

Norfolk Fire and Rescue Service

North Wales Fire and Rescue Service

North Yorkshire Fire and Rescue Service

Northamptonshire Fire and Rescue Service

Nottinghamshire Fire and Rescue Service

Oxfordshire Fire and Rescue Service

South Wales Fire and Rescue Service

South Yorkshire Fire and Rescue Service

Tyne and Wear Fire and Rescue Service

West Midlands Fire and Rescue Service

West Sussex Fire and Rescue Service

West Yorkshire Fire and Rescue Service

Wiltshire Fire and Rescue Service