



**Northern Ireland
Fire & Rescue Service**

STANDARD OPERATING PROCEDURE NO 37

Chimney Fires

Version Number:	2
Version Date:	16 May 2014
Issued by:	Emergency Response Department

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VERSION CONTROL

This document and subsequent amendments will be issued by the Emergency Response Department, Northern Ireland Fire & Rescue Service Headquarters.

Amendments are detailed as below:

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1 INTRODUCTION

1.1 Scope

This SOP has been developed to contribute to a safe system of work for chimney fires.

The scope is limited to chimney fires in domestic properties.

A chimney fire includes incidents caused by defective hearths and flues.

1.2 Pre-determined Attendance (PDA)

One pump.

2 SIGNIFICANT HAZARDS AND CONTROL MEASURES

Significant Hazards	Control Measures
Burning embers causing potential fire-spread	<ul style="list-style-type: none">▪ Observe direction of travel of embers.▪ Damp down where appropriate<ul style="list-style-type: none">- thatched roofs;- surrounding combustible materials.▪ Use thermal imaging camera to identify fire-spread.
Release of Carbon Monoxide/toxic gas	<ul style="list-style-type: none">▪ Consider ventilation.▪ As part of 360° reconnaissance, identify if there are any blockages of the external flue/chimney.▪ Cool/damp down fire.▪ Isolate fuel sources (gas, oil, coal, wood).▪ Use of Breathing Apparatus (BA) at the appropriate level.
Hazardous airborne materials	<ul style="list-style-type: none">▪ Appropriate Personal Protective Equipment (PPE).▪ Wear dust masks or respirator.▪ Use of BA at the appropriate level.▪ Ventilate where appropriate.
Back boiler explosion (not vented/kettling)	<ul style="list-style-type: none">▪ Check heating system is circulating hot water system when system type is identified.▪ Run hot water taps.
Hot materials falling down the chimney	<ul style="list-style-type: none">▪ Use a mirror to inspect the flue.▪ Wear gauntlets.

Significant Hazards	Control Measures
Blow back Rapidly expanding steam	<ul style="list-style-type: none"> ▪ Apply water in small amounts. ▪ Use chimney shield. ▪ Face away.
Shattering cast iron	<ul style="list-style-type: none"> ▪ Apply water in small amounts. ▪ Avoid application of water directly to cast iron.
Working in a restricted space within the loft	<ul style="list-style-type: none"> ▪ Ensure adequate lighting. ▪ Brief personnel to walk on rafters. ▪ Brief personnel on the possible presence of utilities and electrical components such as photovoltaic panels.
Vermin/nesting insects/birds	<ul style="list-style-type: none"> ▪ Use adequate lighting to identify. ▪ Avoid contact/exposure. ▪ Do not eat, drink or smoke without washing hands.
Fighting chimney fire from roof	<ul style="list-style-type: none"> ▪ Aerial appliances. ▪ Working at height procedures must be implemented. ▪ Ensure adequate lighting. ▪ Ensure stability of any anchor points (check for false chimneys, etc). ▪ Where possible, avoid working around photovoltaic panels on a roof.
Falling masonry from roof damaged chimney pots	<ul style="list-style-type: none"> ▪ Cordon off area around the building. ▪ Appoint a Safety Officer to maintain external safety.

3 OPERATIONAL CONSIDERATIONS

3.1 EN ROUTE

Immediate Considerations

- Consider additional Fire Service resources you may require on arrival.
- Allocate roles to crew members.
- Consider Significant Hazards/Control Measures above.

Think through the phases of the Incident Plan

- Decision Making Model
 - Incident information.
 - Resources information.
 - Hazards and safety information.
 - Prioritise objectives.
 - Plan.
 - Communicate and control.
 - Re-evaluate.
- Consider Tactics
 - Attack from the grate.
 - Attack from intermediate level.
 - Attack from the roof – avoid if possible.
 - Consider use of an Aerial appliance.
 - Permit fire to burn out.
- Officer-in-Charge Considerations
 - Focus on safety throughout.
 - Direct operations by standing back.

3.2 IN ATTENDANCE

Arrival

- Careful approach.
- Safe appliance positioning.
- Dismount on the safe side.

Initial Actions

- Gain information from the occupier on:
 - chimney/flue;
 - additional fireplace openings to the same flue;
 - access to the loft;
 - location of the fire;
 - potential fire-spread.
- Carry out a Dynamic Risk Assessment.
- Prioritise objectives and communicate plan.
- Additional resources (Aerial).

Brief Crews

- Prioritise.
- Plan.
- Hazards.
- Control measures.

Consider Safety Officer and brief accordingly

- Monitor overhead hazards.
- Identify electric cables.
- Control access and egress.
- Implement Exclusion Zones at gable ends.
- Monitor for signs of collapse.
- Monitor for cracked or loose chimney pot.

Extinguish Fire

- Use small quantities of water on embers allowing steam to cool the flue.
- Use a mirror to inspect the flue.
- Use intermediate inspection plates if available.
- Identify if burning is present due to a defective hearth or fireplace.
- Use a thermal imaging camera to identify hot spots.
- Check roof space.
- Confirm if the flue is defective.
- Confirm there is no fire-spread.

Handover/Advice to Occupier

- Advise that the flue should be cleaned/inspected by a professional.
- Advise/ensure that ashes are removed to the open air to mitigate CO build-up in the property.
- Check for a working smoke alarm.
- Provide advice on how to arrange a Home Fire Safety Check.

3.3 POST-INCIDENT

Medical Attention

Medical attention is to be sought as appropriate.

De-brief

Carry out and feedback as appropriate.

Equipment Issues

- Replenish items used.
- Submit defects.
- Source replacement equipment via District.

Incident Recording Form (IRF)

Complete IRF within 21 days.

Accidents or Near Misses

- Accidents are to be fully investigated and reported as per normal procedures.
- Near misses are to be reported as per normal procedures.

Decontamination of Fire Kit

Standard procedures are to be followed.

4 PRE-INCIDENT PREPARATION

4.1 Relevant Literature

This SOP is supported by the following Training Notes, which are available from the Global Folder at G:\Training\Training Notes:

- Incidents 3 – Hearth Fires;
- Incidents 4 – Chimney Fires.

4.2 Training

The following training shall be carried out, in accordance with the Area Training Planner, to prepare in advance for Chimney Fires.

- Methods of extinguishing chimney fires.
- Removal of fireplaces.
- Use of stirrup pump.
- Use of chimney rods.
- Working at height.

All training must be recorded on the Tracking & Training Database to provide an effective audit trail.

4.3 Pre-planning

It is beneficial, where practical, to carry out pre-planning activities as follows:

- Use Home Fire Safety Checks as opportunities to gain information on domestic chimneys, glass fronted fires and heating systems.
- Provide advice on how to prevent chimney fires during Home Fire Safety Checks.
- Identify local chimney fire hot spots and target through community education initiatives.
- Identify derelict properties and seek permission to carry out training exercises.
- Test, maintain and stow safely all PPE and equipment