

# FIRE SERVICES EXAMINATIONS BOARD

## STUDY NOTE

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| EXAMINATION    | LEADING FIREFIGHTERS EXAMINATION          |
| PAPER          | OPERATIONS                                |
| SUBJECT        | OPERATIONAL PROCEDURES & INCIDENT COMMAND |
| ITEM           | EMERGENCY EVACUATION PROCEDURES           |
| STUDY NOTE No. | 1101                                      |

### ***INTRODUCTION TO THE STUDY NOTE***

***This study note has been prepared as the basis of study in connection with the qualifying examinations for promotion.***

***Candidates will be expected to demonstrate knowledge of the information contained in the study note and understand how it should be applied:***

***The 'References' made at the end of the Study Note are included for information only and candidates will not be expected to study these as part of the bibliography.***

## EMERGENCY EVACUATION PROCEDURES

### 1. Introduction

Officers need to be fully conversant with emergency and evacuation procedures at incidents.

This Study Note sets out a precise of a Dear Chief Fire Officer/Firemaster Letter regarding emergency evacuation procedures and details the use of the standard evacuation signal.

### 2. Guidance

The guidance is intended to be applied equally to the Acme Thunderer Whistle and to any other device, which is likely to be introduced in the foreseeable future as an additional means of initiating the evacuation signal.

The evacuation signal should only be used as a last resort in unforeseen circumstances. It should not be used for roll calls or tactical withdrawals.

As far as possible the fire service response to all operational incidents should be managed in such a manner as to mitigate or eliminate all foreseeable risks/hazards to personnel and therefore to avoid the need for emergency evacuations.

However, there remains the need to prepare for unforeseeable eventualities that may not be possible to control or contain and to provide for circumstances where there might be a need to put into operation emergency evacuation procedures in order to protect personnel and ensure their safety.

The fire service needs to have a shared understanding of the issues and the principles involved in instigating emergency evacuation and brigades need to have a common approach to the procedures and practices required.

### 3. Overall Objectives of Emergency Evacuation Procedures

Objective A Create awareness amongst operational personnel of what circumstances are likely to create a need for emergency evacuation and what to do in the event of initiation of the process;

Objective B Authorise and enable appropriate personnel to initiate the procedure as soon as they became aware of the need, using nationally recognisable methods of raising the alarm, in such a manner that it can be received and understood by all, particularly those at risk;

- Objective C    Manage an emergency evacuation as far as practicable in such a manner as to withdraw initially those personnel at greatest risk whilst protecting their route of withdrawal; and
- Objective D    Remove remaining personnel from areas of unacceptably high risk, in a controlled and safe manner, having due regard to the ongoing risks posed by the incident to the public at large.

#### 4. Elements of Objective A

*Create awareness amongst operational personnel of what circumstances are likely to create a need for emergency evacuation and what to do in the event of initiation of the process;*

*There are a range of scenarios that may occur in incidents which may give rise to consideration of initiating an emergency evacuation. The following examples are indicative of the type of situation which might give rise to the consideration of putting emergency evacuation procedures into operation.*

- (a)    A gradually worsening situation should be reported to the officer in charge of the incident but may not necessitate tactical withdrawal or an emergency evacuation.
- (b)    A sudden and/or violent deterioration may warrant immediate controlled tactical withdrawal of the team(s) in the immediate vicinity, initiated locally by team leaders or safety officers, but not necessarily warranting activation of the emergency evacuation procedure.
- (c)    Developments of so serious a nature or an indication of imminent potential hazard might lead to the immediate initiation of the emergency evacuation procedure to remove personnel at serious risk. This could be localised (if practicable) or cover a wide area of the incident ground.

Consideration should be given to the possible circumstances, which might give rise to the initiation of the emergency evacuation procedure. The following examples are indicative of circumstances, which might give rise to such consideration, but the list is not intended to be exhaustive:

- (a)    rate of spread of fire, or its products, threatening the ability of personnel to withdraw from a rapidly deteriorating situation;
- (b)    obvious structural damage as a precursor to collapse;
- (c)    the presence of toxic or potentially explosive substances, the release or detonation of which could seriously endanger team members; or
- (d)    notification by informed or qualified people on site of other immediate hazards to lives of personnel.

A continual process of assessment of risk should be carried out. This process might be limited to a small area or might be extensive, possibly involving the whole incident ground. During the process of risk assessment the nature and importance of the tasks and objectives of particular teams must be considered and balanced against the level and imminence of the threat to the safety of personnel.

The evacuation signal recommended for the fire service remains repeated short blasts on a whistle of the Acme Thunderer type. The sound should be relayed as necessary. It is intended to introduce other devices in addition to the whistle in the future but any such devices will emit the same sound as the whistle. This guidance is applicable to the whistle and any other device, which might be introduced in the future.

The following procedures should result from the initiation of the emergency evacuation signal.

- (a) those nearest the hazard should immediately withdraw;
- (b) escape routes for those within dangerous areas in premises or on the incident ground should be protected to ensure safe withdrawal of personnel;
- (c) where possible a controlled, phased evacuation should be conducted to remove those at greatest risk followed progressively by those further from the threat;
- (d) everybody becoming aware of the process should withdraw unless specifically tasked, for example, as in b) or c) above;
- (e) a roll call should be taken to confirm that all personnel involved in the emergency evacuation have been accounted for; and
- (f) personnel should be re-committed only when the officer in charge is satisfied that it is safe.

Team leaders and their members should respond to the evacuation signal or to specific or general instructions to withdraw.

Where officers-in-charge of incidents, sector commanders or safety officers can communicate directly with team leaders of specific teams, localised controlled tactical withdrawals may be achievable. Detailed instructions may be passed on giving the reason for withdrawal, (for example, the nature of the risk), precautions to be taken and route to be followed to avoid greatest risk.

If such communication is not possible, the response to an emergency evacuation signal should be determined, in the first instance, by following any predetermined withdrawal process laid down during briefings of officers or teams prior to entering the incident area. Prior training in these procedures will also be important.

If the predetermined withdrawal process becomes inappropriate due to the circumstances of the incident, or if no such process has been predetermined, then team leaders should direct their team's withdrawal as speedily as circumstances permit by the route which appears to be the safest. If possible, this should be the route traversed on entering the risk area, as the team will be familiar with the layout and their point of exit will be adjacent to the relevant BA entry control point.

## 5. Elements of Objective B

Authorise and enable appropriate personnel to initiate the procedure as soon as they become aware of the need, using nationally recognisable methods of raising the alarm, in such a manner that it can be received and understood by all, particularly those at risk;

In determining "appropriate" personnel, Chief Fire Officers will need to consider who, at each incident, is:

- (a) adequately trained;
- (b) sufficiently experienced and knowledgeable in operational activities;
- (c) being kept fully updated of the operational developments and potential risks;
- (d) able to communicate and/or discuss any decision with more senior management if necessary and to make the most appropriate judgment from the point of view of the safety of personnel as to when and where emergency evacuation at an incident should be initiated;
- (e) well informed of the location of teams in a sector or the whole incident ground; and
- (f) likely to be most appropriately located at an incident to initiate the signal(s) and ensure that all at risk can be made aware of the evacuation.

Nothing will ever be allowed to constrain the right or duty of team leaders or team members to remove themselves, by the safest and most expeditious means possible, from extremely dangerous or adverse conditions as and when they believe it essential to do so for safety reasons.

However, a larger scale emergency evacuation will need wider knowledge and consideration should be given as to when and how crews should be withdrawn (see C below).

Nominations of "appropriate" personnel may be better related to particular functions at an incident rather than related to rank, dependent on the size of the incident.

In the event of a firefighter, who was not considered to be competent to initiate an evacuation signal at a particular incident, seeing or witnessing something which the firefighter felt warranted the initiation of an emergency evacuation, the correct course of action would be to alert an officer.

When the method of indicating the emergency evacuation has been activated, it must be nationally recognisable to ensure that personnel from brigades working together at cross border incidents will all identify it and respond appropriately.

## 6. Elements of Objective C

Manage an emergency evacuation as far as practicable in such a manner as to withdraw initially those personnel at greatest risk whilst protecting their route of withdrawal.

The general sequence of events described under 'Objective A' e can only be managed in a safe and controlled manner if the following elements are in place.

### (a) Briefing

All teams entering risk areas should as far as is practicable be briefed as to their team objective and how that relates to overall incident management. They should in particular be reminded of the need to communicate as far as possible on progress, difficulties encountered and changes of team positions.

### (b) Command chains

A clear command chain consisting of for example, officer-in-charge, sector commanders, and team leaders should be established, each exercising authority within their area of control.

### (c) Communications

Full use should be made of any available communication facilities for sharing information on the developments of the incident and its changing nature or status.

### (d) Safety Officers

Selected officers should be detailed to monitor specific or general safety concerns.

### (e) Safety

Teams should be nominated where necessary to protect the escape route of others committed to areas of known or anticipated higher risk areas, such as deep penetration firefighting or rescue teams.

## 7. Elements of Objective D

Remove remaining personnel from areas of unacceptably high risk, in a controlled and safe manner, having due regard to the ongoing risks posed by the incident to the public at large.

This process flows naturally from the procedures outlined above.

## 8. Evacuation of Premises

The CENTRAL FIRE BRIGADES ADVISORY COUNCIL has recommended that a standard evacuation signal should be adopted by those brigades who use an evacuation signal.

The signal recommended is repeated short blasts on a whistle of the Acme 'Thunderer' type. The advantage of whistles over other loud signals made outside premises is that they can be relayed inside a building so that there is a better chance that all persons concerned will hear them. They also allow the warning to be localised if it is desired to evacuate only part of the premises. A further advantage is that the sound of a whistle is distinctive.

It is recommended that all leading firefighter and ranks above should carry whistles; in addition, a whistle should always be available for the officer in charge of an appliance. Whistles should be used ONLY for the standard evacuation signal and NOT FOR ANY OTHER PURPOSE (eg, they should not be used for pumping signals).

On hearing repeated short blasts from a whistle firefighters should make their way as quickly as possible out of the premises. The withdrawal should be orderly so that a dangerous situation is not caused. Everything possible should be done to achieve complete and immediate clearance of all personnel including members of the public and other Services from the risk to a place of safety. Equipment that cannot be immediately withdrawn should be left IN SITU and branches which may be still working should be shut down if possible or made as safe as circumstances permit.

## References

Dear Chief Fire Officer Letter 5/1994

Dear Firemaster Letter 10A/1994

Manual of Firemanship Book 11, Chapter 4