



Defence
Safety Authority

DSA 03.OME Part 4 (JSP 498)- Defence Code of Practice (DCOP) and Guidance Notes – Defence Major Accident Control Regulations (MACR)

Defence OME Safety Regulator

DOSR



DSA VISION

Protecting Defence personnel and operational capability through effective and independent HS&EP regulation, assurance, enforcement and investigation.

PREFACE

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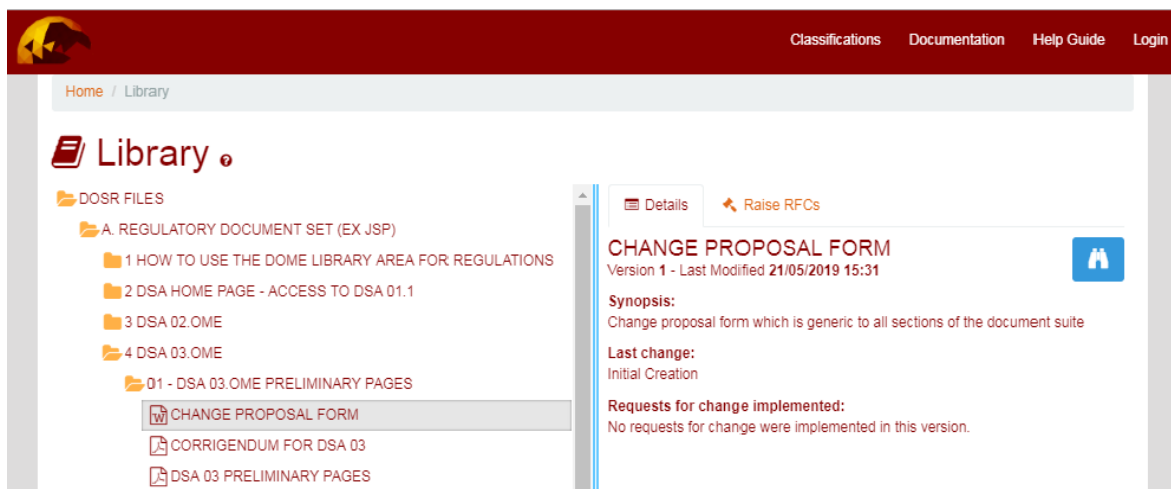


Figure 1. Change Proposal Form (Word version) Location

4. Any post and grammar change proposals can be approved or rejected by the DOSR PRG Authors without involvement of the associated Working Group.
5. Technical change proposals will need to be submitted to the associated Working Group for review and approval or rejection.
6. When incorporating changes care is to be taken to maintain coherence across regulations.
7. Changes effecting Risk to Life will be published immediately.
8. Other changes will be incorporated as part of routine reviews.

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9. The DOSR PRG team will ensure these OME Regulations remain fit for purpose by conducting reviews through the DOSR Governance Committees, involving all Stakeholders.

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10. The document owner is the DOSR. For further information about any aspect of this document, or questions not answered within the subsequent sections, or to provide feedback on the content, contact:

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CHAPTER 3 SAFETY REPORT

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INTRODUCTION

1. Each Head of Establishment (HOE) of an Upper Tier Establishment is required to produce a Safety Report (SR). The key requirement of the SR is a demonstration that all measures necessary to prevent Major Accidents (MAs) and to limit the consequences to human health and or the environment of any that occur have been taken.

2. The demonstration should show the following:

- 2.1 A Major Accident Prevention Policy and Safety Management System (SMS) for implementing it are in place.
- 2.2 All MA hazards have been identified.
- 2.3 Measures necessary to prevent MAs and limit their consequences have been taken.
- 2.4 Adequate safety and reliability have been incorporated into the design, construction, operation and maintenance of installations linked to the identified MA hazards.
- 2.5 An On-Site Emergency Plan has been drawn up.

- 2.6 Information has been supplied to the Local Authority (LA) for them to draw up an Off-Site Emergency Plan.

DESCRIPTION OF ESTABLISHMENT

3. The SR is to include a comprehensive description of the establishment and its surroundings and should include:
- 3.1 Description of the establishment and its environment including the location, relationship to nearby towns or significant features, meteorological, geographical, hydrographic condition and, if necessary, its history.
 - 3.2 Identification of installations and other activities of the establishment that could present an MA hazard.
 - 3.3 Description of areas where an MA may occur.
4. The description of the establishment and installations should be in sufficient detail to enable the MACR Competent Authority (MACR CA) to have a clear picture of its purpose, location, activities, inherent hazards and technical equipment for safe operation.
5. Maps of adequate scale should be provided which show the establishment and surrounding land use within an area dependent on the possible impact of MAs. Both the land use eg, industry, agriculture, urban developments, environmentally sensitive locations etc. and the locations of significant features eg, hospitals, schools, other industrial sites, airports, harbours, water abstraction points etc. should be clearly indicated.
6. The layout of the establishment as a whole and its relevant installations should be clearly shown on adequately scaled diagrams or maps and any sections of the establishment with particular importance in respect of MAs should be repeated at a larger scale. Installations and other features of the establishment including the following should be identified:
- 6.1 Main storage facilities.
 - 6.2 Process installations.
 - 6.3 Other locations of relevant dangerous substances and their quantities.
 - 6.4 Relevant equipment (including vessels and pipes).
 - 6.5 Utilities and services.
 - 6.6 Means of access and egress for installations within the establishment and for the establishment. This should indicate normal and emergency routes.
 - 6.7 Control rooms, offices and other occupied buildings such as workshops and canteens that could be vulnerable in an MA.

DESCRIPTION OF DANGEROUS SUBSTANCES

7. Evidence of the establishment method for identifying the inventory of dangerous substances must be given. This can be achieved by utilising the

existing establishment stock accounting system that highlights items incorporating dangerous substances.

8. This information must be linked to the MA risk assessment process so that potential Safety, Health, Environment and Fire risks from the dangerous substances or their products in the event of an MA are properly considered. This should be done by determination of the location and vulnerability of the dangerous substance relative to the location of each potential MA.

DESCRIPTION OF INSTALLATION

9. A description should be given of the installations on the establishment that have MA potential. Overall the purpose is to show that the SMS measures described earlier in the SR have been executed. It should describe the process that is being undertaken at the installation in sufficient detail to allow an understanding of the process itself and the hazards it could generate. It should also identify the maximum anticipated quantity of each of the named dangerous substances held.

10. For each installation there should be a description of the purpose, location and function of equipment that is involved in MA prevention or mitigation and the measures taken to prevent foreseeable failures that could lead to an MA.

11. The information should be sufficiently detailed to demonstrate that the steps necessary to prevent an MA or limit its consequences have been taken. There should be information on items of plant (if relevant to MA hazards) such as pressure vessels, pipework and on-site pipelines, utilities, drainage, monitoring and detecting systems and fire fighting arrangements. All variations to normal operating conditions should be considered eg, maintenance, shutdown, decommissioning etc.

12. Information for establishments that have more than one installation having MA potential may be provided as core information for the whole establishment, only identifying any differences at specific locations or in operating conditions.

INFORMATION FOR THE LOCAL AUTHORITY

13. Information provided to the LA should be sufficient to allow the Off-Site Emergency Plan to be developed (see Chapter 7). It is acceptable to make this information generic providing it is made clear that more detail is held by the establishment and that the On-Site Emergency Plan will deliver this information to the emergency services in the event of an MA.

14. The emergency services will need to be aware in advance of all specific hazards in order to ensure the correct response eg, if a chemical hazard is present and full de-contamination suits must be worn then it is vital that the emergency services are aware of that fact.

15. There is no intention to provide sufficiently detailed information that would allow an accurate assessment to be made of the military capability of the establishment eg, number or type of weapons and their disposition. This is clearly sensitive information that will not be disclosed on the grounds of national

security. Any concerns on the exact level of detail should be referred to the Area Security Officer and or the MACR CA.

PROVISION OF INFORMATION TO THE PUBLIC

16. The HOE is responsible for the following:
 - 16.1 Dealing with enquiries from members of the public who request information on establishment hazards, MA consequences, MA mitigation and environment issues pertaining to the establishment.
 - 16.2 Providing information to people in the Public Information Zone (PIZ) about the establishment MA hazards, mitigation measures, alarm systems and personal precautions to be taken by the public in the event of an incident (see Annex 3A).
 - 16.3 Providing sufficient information to the LA to allow it to formulate an Off-Site Emergency Plan.
17. The procedures governing the provision of information to the public and the PIZ are given in Annex 3A.

ALERTING THE PUBLIC

18. The risk assessment process enables establishment's to quantify the hazard(s) posed by each hazardous installation should an accident occur. Using this information an assessment must be made of the most suitable method to alert those people in the PIZ who could be immediately affected by an accident should one occur. Dependant on the hazard the warning of all the people in the PIZ may be required or the warning could be restricted to just a small section. Typical methods may include:

- 18.1 A Warning Siren
- 18.2 Telephone Calls to nominated individuals
- 18.3 Telephone calls to organisations (schools, hospitals, sports centres etc)
- 18.4 Tannoy System
- 18.5 Signage (transient people)

19. The aim is to ensure all members of the public who could be at risk are warned immediately in order to allow them to put into practice the actions advised by the information leaflets issued in accordance with Annex 3A.

20. The methods should be targeted in accordance with the anticipated risk. For example, an explosive accident, the use of a warning siren may be required to allow a wide spread alert to be issued.

21. Note: for a pollution incident it may be better to have an emergency telephone contact list and advisory notice in place to inform the emergency services, plus down-stream water abstractors and the Environment Agency (or SEPA) of the type of problem and the actions taken to date. See also Chapter 4.

ANNEX 3A

PROVISION OF INFORMATION TO THE PUBLIC

Para

1. Introduction
2. Timescales for the Provision of Information
3. Grounds for Refusal
4. Confidentiality
5. Charging
6. Unreasonable Effort or Excessive Cost
7. Information for the Public Information Zone
11. Supply of Information
12. Method of Supply
15. Review

INTRODUCTION

1. The Head of Establishment (HOE) must provide a certain level of information in accordance with MOD procedures if the emergency plans required by the Major Accident Control Regulations (MACR) are to be implemented effectively. This information must be provided in accordance with the procedures given in this Annex.

TIMESCALE FOR THE PROVISION OF INFORMATION

2. All requests for information must receive a written response as soon as possible. The current MOD policy on access to government information is that a response should be given within 20 working days and this period will be applied in respect of MACR. If extensive work is necessary before the establishment is in a position to release a response, a written explanation detailing the circumstances should be issued within the 20 day timescale. In any case the final response is to be issued within two months.

GROUNDINGS FOR REFUSAL

3. The presumption is that information should be provided unless there is a compelling and substantive reason to withhold it. Requests may be refused if they are manifestly unreasonable, if the question is too general or if the information is held for any judicial or legislative function.

CONFIDENTIALITY

4. The MOD also has the discretion to refuse to provide information on the grounds of confidentiality if it affects international relations, national defence, security, commercial confidentiality or if it relates to legal (or similar) proceedings. Where any doubt exists regarding the release of information guidance should be sought from the MACR Competent Authority (MACR CA).

CHARGING

5. The MOD policy on freedom of access to environmental information provides discretionary powers for the recovery of costs, provided that any charge does not exceed the costs reasonably attributable to the supply of information. The following charging policy will apply to MACR related enquiries:

No charge to be raised for the first four hours spent on a request.

A charge of £15 may be raised for every extra hour (or part hour) spent preparing the response.

6. The enquirer should be informed if charges are to be levied, at which time they should be asked to confirm that they wish to proceed with the process. The latest MOD Defence Council Instruction (DIN) should be read in conjunction with this document to confirm current MOD policy on this matter.

UNREASONABLE EFFORT OR EXCESSIVE COSTS

7. The HOE is to ensure that there is no misuse of the grounds for refusal. There will be occasions however when a judgement is required as to whether unreasonable effort would be needed to answer a question. This may be unreasonable in terms of time spent or likely costs associated with an in-depth question. Where doubt exists the MACR CA should be consulted.

INFORMATION FOR THE PUBLIC INFORMATION ZONE

8. The area around an establishment in which information must be disseminated is determined by the MACR CA and is known as the Public Information Zone (PIZ). The PIZ encompasses those who could be immediately affected by a MA. The information given to them details the actions to take on being alerted to an incident. The PIZ for establishments holding explosives is deemed to be the purple line on the Safeguarding Map. The PIZ for petroleum installations extends to 1000 metres radius from the bulk fuel tank. Tank capacities of less than 1000 litres may be ignored for the purpose of determining the PIZ. The PIZ for LPG tanks extends to 200 metres from the tank. The PIZ for LOX extends to 100 metres from the tank (it is considered unlikely that the public will be within this distance). For an establishment with a number of potential explosion sites (PES's) and/or a number of fuel tanks the

PIZ will be the total area covered by a number of overlapping arcs or discrete zones.

9. The zones created by explosives and fuels are considered to be dominant and therefore zones have not been set for other types of dangerous goods. It is possible for the MACR CA to apply a reduced PIZ distance based on a more detailed assessment of the local circumstances. If significant difficulties are envisaged by the establishment in utilising the standard PIZ criteria then a request to review the PIZ should be notified to the Assessment Manager. The PIZ is set on the basis that people outside it are **not at significant immediate risk** from a Major Accident (MA), although it is accepted that they could be later if the incident escalates.

10. Information must be made available to persons who live or work in the PIZ and to those whose presence can be reasonably predicted to be within the PIZ at the time an MA might occur. These would include establishment personnel, contractors, transient workers, Shop Keepers, married quarters, schools, establishment visitors, open days, fete attendees, car boot sales, sport gatherings etc. It is the responsibility of the HOE to determine which of the following method(s) to utilise for disseminating this information to people at risk:

On-Site and Contractor Personnel:

- Health and Safety brief.
- Information sheet.
- Brochure.
- Permit to Work procedure.
- Visitor arrival brief.

Open Days:

- Visual displays at access points.
- Information handout.
- Video brief.
- Verbal brief.

Off-Site Personnel:

- Establishment letter.
- Brochure.
- Emergency Instruction Leaflet.

SUPPLY OF INFORMATION

11. The following is a guide on the information for supply to the PIZ:

Provide the name of the establishment and postal address.

Outline the principle activity of the establishment in lay terms and identify those substances that may lead to an MA such as explosives and fuels. It is reiterated that there is no need to disclose detailed information on the type or quantity of munitions or fuels held or their specific location within the establishment.

Provide details of the assessed nature, type and scale of potential MA and the effect on the local population and the environment should be described.

Give a general description of the arrangements to control the risks and the likelihood of an accident occurring. This will help in the understanding of the activity.

Provide information on how the PIZ will be informed in the event of an MA. This will need to be agreed with the Local Authority (LA) and the emergency services. It may take the form of dedicated establishment sirens, telephone auto diallers, individual telephone calls, police cars utilising loud hailers etc. If the incident is only likely to affect a particular sector of the PIZ then the alerting mechanism should be tailored to just that sector where it is feasible to do so therefore avoiding unduly alarming people in the remainder of the PIZ.

Advise how the PIZ will be updated on the developing situation eg, Police Tannoy or specifying TV and local radio stations etc to tune into for further advice.

Outline the actions that the people within the PIZ must take in the event of an MA. This must be both practical, easy to follow and include advice such as where to shelter, whether to open or close windows and how to avoid exposure etc.

Include reference to the Off-Site Emergency Plan, making it clear that the LA (insert LA name) has produced it. Emphasise the importance of co-operating with the LA and the emergency services in the event of an MA.

Provide an office hours contact telephone number to deal with queries from the public.

METHOD OF SUPPLY

12. The most successful way of disseminating the statutory information to the public is by utilising a mail shot to all premises. The mail shot (information pack) should include a letter and an Emergency Instruction Leaflet, copies of which would need to be lodged with the LA. The information must be establishment specific, written in straightforward, simple terms and avoid complicated technical expressions. Remember it is important to get this information across to children as well as adults therefore highlight key items and use illustrations where possible. Consultation with the LA will help ensure that best use is made of local knowledge and expertise when communicating externally.

13. A guide to the letter covering information and emergency instructions for the PIZ is given in Appendix 3A1. Examples of Emergency Instruction Leaflets that focus on establishments with different hazards eg, fuels, explosives or a combination of both are given in Appendixes 3A2 to 3A4. All queries regarding the content of these examples should be referred to the MACR CA. Where possible, leaflets should be produced using durable, plastic coated card. The information letter should encourage the recipient to display the leaflet along with other emergency instructions in the home or workplace.

14. Establishments are to liaise with the LA when preparing information for the PIZ, to ensure that the Off-Site Emergency Plan reflects the detail given to local premises.

REVIEW

15. The establishment is required to review this information at least every three years and reissue every five years even if no significant change has occurred. This will cater for changes in the population and ensure people who have moved to the area are properly informed. Additionally, the establishment shall revise the information in the event of a modification to the Safety Report that affects the PIZ.

APPENDIX 3A1

INFORMATION AND EMERGENCY INSTRUCTIONS FOR PUBLIC INFORMATION ZONE

INTRODUCTION

1. The following is an example of the contents of a typical mail shot to the Public Information Zone (PIZ) which will need modifying by each establishment to reflect their specific situation:

Dear Neighbour,

I am writing to you about safety at "*insert establishment name*". We qualify as an Upper Tier Establishment under Major Accident Control Regulations and some years ago you will have previously received a letter from my predecessor enclosing an Emergency Instruction leaflet. In accordance with the Regulations I am re-issuing the advice leaflet.

In common with many Ministry of Defence establishments and to support national defence operations, "*insert establishment name*" stores some substances that are classified as hazardous, namely, "*insert substance name*". We employ teams of trained professionals who are experienced in handling these substances. The installations where hazardous substances are stored and handled are licensed under strict International, National and internal standards and our activities are regulated by independent authorities. Rigorous inspections and frequent audits ensure that our safety standards are not only maintained but continuously reviewed and improved.

Under the Regulations our internal emergency plans have been embedded in the plans made by the Local Authorities. These include the County and District Council, Emergency Services (Police, Fire, Ambulance), Health Agencies, Utilities (Water, Electricity, Gas), and Environment Agency.

You should not be alarmed by the contents of the leaflet, the operations at "*insert establishment name*" have not changed, the hazards have not increased and the risk of a major accident is no greater now than when the Regulations were first introduced.

The enclosed leaflet outlines the warnings that will be given and the actions to take in the event of an emergency. Please keep this leaflet in a safe place and, if you should move, leave it for the new occupant. Should you have any concerns regarding the operations at this establishment please do not hesitate to write to me.

Commanding Officer / Head of Establishment

Enclosure:

1. Emergency Instruction Leaflet Risk: Explosives/Fuels.

APPENDIX 3A2

EMERGENCY INSTRUCTION LEAFLET FOR EXPLOSIVES AND FUEL FIRE RISK

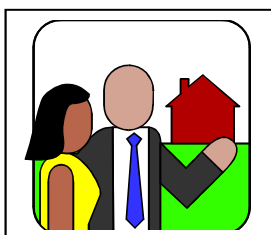
INTRODUCTION

1. The following is an example of the content of an Emergency Instruction Leaflet relating to an establishment with an explosives and fuel fire risk:

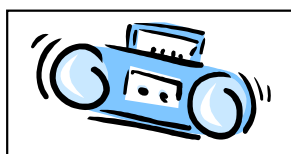
Insert Establishment Name and date of issue

Emergency Instruction Leaflet Risk: Explosives and Fuel Fire

If you hear the warning: (Insert measures eg, sounding of alarm, telephone message, Police car tannoy etc.)



1. Go immediately into a house or building.
2. Close external doors, turn off ventilation systems.
3. Close all windows and curtains.
4. Close all internal doors and go to a room facing away from (enter establishment name).
5. Tune your radio to your local radio station (eg, *FM 102.2 MHz The Bear*) which will be used to broadcast information or instructions.



6. Remain indoors until you receive instructions from the Police.



7. **Do not** use the telephone to contact the establishment to ensure lines are free for the emergency services.
8. Please co-operate fully with the instructions given by the emergency services.

2. The following is an example of the type of information that should appear on the reverse of the Emergency Instruction Leaflet:

Ministry of Defence
Major Accident Control Regulations
This leaflet is produced in accordance with the above regulations to advise you what to do in the unlikely event of a major accident occurring within the establishment that could affect you.
Please read this carefully and follow the instructions given overleaf if the warning is implemented (will vary for each establishment therefore amend accordingly).
Householders are advised to ensure that all occupants understand the instructions. Responsible persons in business or community premises should also be familiar with the actions required to enable them to instruct occupants in the event of a major accident.
This leaflet should be kept in an accessible place and passed on to subsequent occupiers. It should be prominently displayed in business or community premises. Additional copies may be obtained from the Local Authority (provide address in full or other arrangements as applicable).

APPENDIX 3A3

EMERGENCY INSTRUCTION LEAFLET FOR FUEL FIRE RISK

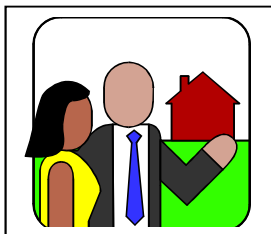
INTRODUCTION

1. The following is an example of the content of an Emergency Instruction Leaflet relating to an establishment with a fuel fire risk:

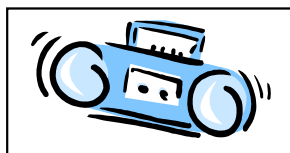
Insert Establishment Name and date of issue

Emergency Instruction Leaflet Risk: Fuel Fire

If you hear the warning: (Insert measures eg, sounding of alarm, telephone message, Police car tannoy etc.)



3. Go immediately into a house or building.
4. Close external doors, turn off ventilation systems.
3. Close all windows.
5. Go to a room facing away from (enter establishment name).
6. Tune your radio to your local radio station (eg, FM 102.2 MHz The Bear) which will be used to broadcast information or instructions.



7. Remain indoors until you receive instructions from the Police.



8. **Do not** use the telephone to contact the establishment to ensure lines are free for the emergency services.
9. Please co-operate fully with the instructions given by the emergency services.

2. The following is an example of the type of information that should appear on the reverse of the Emergency Instruction Leaflet:

**Ministry of Defence
Major Accident Control Regulations**

This leaflet is produced in accordance with the above regulations to advise you what to do in the unlikely event of a major accident within the establishment that could affect you.

Please read this carefully and follow the instructions given overleaf if the warning is implemented (will vary for each establishment therefore amend accordingly).

Householders are advised to ensure that all occupants understand the instructions. Responsible persons in business or community premises should also be familiar with the actions required to enable them to instruct occupants in the event of a major accident.

This leaflet should be kept in an accessible place and passed on to subsequent occupiers. It should be prominently displayed in business or community premises. Additional copies may be obtained from the Local Authority (provide address in full or other arrangements as applicable).

APPENDIX 3A4

EMERGENCY INSTRUCTION LEAFLET FOR EXPLOSIVES RISK

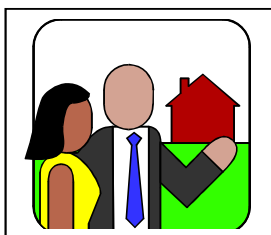
INTRODUCTION

1. The following is an example of the content of an Emergency Instruction Leaflet relating to an establishment with an explosives risk:

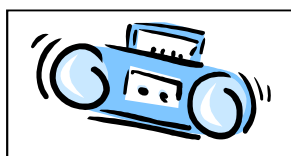
Insert Establishment Name and date of issue

Emergency Instruction Leaflet Risk: Explosives

If you hear the warning: (Insert measures eg, sounding of alarm, telephone message, Police car tannoy etc.)



5. Go immediately into a house or building.
6. Close external doors and turn off ventilation systems.
3. Open all windows and at the same time close curtains.
6. Close all internal doors and go to a room facing away from (enter establishment name).
7. Tune your radio to your local radio station (eg, *FM 102.2 MHz The Bear*) which will be used to broadcast information or instructions.



6. Remain indoors until you receive instructions from the Police.



7. **Do not** use the telephone to contact the establishment to ensure lines are free for the emergency services.
8. Please co-operate fully with the instructions given by the emergency services.

2. The following is an example of the type of information that should appear on the reverse of an Emergency Instruction Leaflet:

Ministry of Defence
Major Accident Control Regulations

This leaflet is produced in accordance with the above regulations to advise you what to do in the unlikely event of a major accident within the establishment that could affect you.

Please read this carefully and follow the instructions given overleaf if the warning is implemented (will vary for each establishment therefore amend accordingly).

Householders are advised to ensure that all occupants understand the instructions. Responsible persons in business or community premises should also be familiar with the actions required to enable them to instruct occupants in the event of a major accident.

This leaflet should be kept in an accessible place and passed on to subsequent occupiers. It should be prominently displayed in business or community premises. Additional copies may be obtained from the Local Authority (provide address in full or other arrangement if applicable).