LEAFLET 9

FIRE SAFETY FOR MARQUEES TENTS AND SIMILAR STRUCTURES IN SUPPORT OF SOCIAL/PUBLIC EVENTS



AMENDMENT RECORD

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Initial Issue	March 2013		DSEA

REVISION NOTE

This leaflet follows a similar format to the Health and Safety Executive (HSE) Approved Code of Practice (ACoP) with guidance contained in boxes separating it from policy.

HISTORICAL RECORD

The leaflet was introduced in 2013.

This policy has been equality and diversity impact assessed in accordance with Departmental policy.

This resulted in a Part 1 screening only completed (no direct discrimination or adverse impact identified) This policy is due for review in March 2016

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Foreword

This JSP 426 leaflet is published under the authority of the Director of the Defence Safety & Environment Authority (DSEA) following consultation with departmental stakeholders and is to be applied across all areas of MOD and the Armed Forces to ensure compliance with UK and host nation legislation/standards and/or MOD policy.

1. SCOPE

- 1.1 The precautions and guidance contained in this leaflet are to be applied in connection with the use of marquees, other tentage and similar structures used for social/public events (Summer Balls, Open Days, etc).
- 1.2 Precautions and guidance to be applied in respect of marquees, other tentage, air supported structures and other similar structures use for Operations and Exercises are contained in JSP 426, Volume 2, Leaflet 10.

2. INTRODUCTION

2.1 The construction of marquees, other tents and similar structures used for social/public events render these structures vulnerable to fire. To ensure the safest use of these structures, this leaflet outlines the legal responsibilities, policy, duties. Further guidance to

those planning events using such structures is provided that can be applied in a risk proportionate manner.

3. DUTIES AND RESPONSIBILITIES

- 3.1 The Responsible Person should be in charge of, and present in, the structure during the whole time the structure is open to the public. Should this prove to be impractical, then, a deputy shall be nominated who is free from work that would take them away from the primary role of safety management supervision, particularly in the event of an emergency.
- 3.2 The Responsible Person or an appointed persons shall ensure that suitable and sufficient assessments of the risks of fire to the structure(s) is undertaken. A site plan of all proposed temporary structures, activities and Fire Risk Assessments is to be forwarded to the relevant Defence Fire Management Organisation (DFRMO) Fire Safety Specialist.

4 ATTENDANTS

- 4.1 Attendants are to be trained in fire safety procedures, with the DFRMO Fire Safety Specialist consulted as appropriate. Instruction shall include a demonstration of the locations and use of firefighting equipment provided, how to call the emergency services and safely manage evacuation procedures. There must be competent attendants on duty during the time that the public are in the structure/s. Attendants must have been specifically instructed as to their responsibilities in the event of fire or other emergency. Account should be taken of the additional responsibility created by the attendance of disabled persons.
- 4.2 At least one attendant, who shall not be the Responsible Person, shall be on duty for every 250 or part of 250 persons in the structure. However, where the majority of the patrons are under the age of 16, there shall be at least one attendant for every 50 or part of 50 persons.
- 4.3 The main duty of attendants is to ensure that safe conditions are maintained in the structure. To achieve this they shall:
 - Be readily recognisable.
 - Ensure that no overcrowding occurs in any part of the structure.
 - Keep gangways and exits clear at all times.
 - Prevent persons from standing on seats or furniture.
 - Be aware of any special requirements needed to ensure the safe evacuation of the audience/patrons.
 - Position themselves at the exits to assist in evacuation, before leaving the premises themselves.

5. SELECTION OF MARQUEES, TENTS AND SIMILAR TEMPORARY STRUCTURES

5.1 When sourcing Marquees, Tents and similar temporary structures, materials and liners should be inherently fire retardant. The material, panels and liners shall have a label or certification affixed to provide details of fire retardant properties and relevant BS/EN or international equivalent standards.

6. SURFACE LININGS

6.1 All exposed surfaces of materials used in the construction of Marquees, Tents and similar temporary structures, materials and liners should be inherently non-flammable. In cases where this is not technically feasible, materials treated with a fire retardant solution may be deemed acceptable¹. Where materials used have been treated with a fire retardant solution, records shall be maintained detailing such treatments and periodic inspections and conditioning checks / re-treatments that are carried out in accordance with the material manufacturer's recommendations.

7. SITING AND LAYOUT

7.1 The site should be clear of hazards; and, in particular provide easy access and ample open space for all the occupants of the tent(s) to get clear to a place of safety in the event of fire. Spacing between marquees, and between tents and other similar type structures, shall be not less than 6 metres.

GUIDANCE

Where marquees are to be sited in close proximity (within 6 metres) to a permanent building, this will have a considerable effect on the fire safety arrangements for both structures. In such circumstances, consultation with the DFRMO Fire Safety Specialist will be essential.

- 7.2 Special care is to be taken when tentage is used for entertainment or exhibition purposes. Under no circumstances are tents or marquees to be directly attached to permanent buildings. If direct access from permanent buildings is required, a covered walk way is to be provided, terminating at least 1 metre from the building.
- 7.3 The site must be arranged to allow for adequate means of access for firefighting appliances to within 50 metres of any part of the structure. Access routes shall be not less than 4 metres wide, have no overhead structure or cables less than 4.5 metres above the ground, and shall be capable of taking the weight (about 14 tonnes) of firefighting appliances in all weathers.
- 7.4 Emergency vehicle access routes within the site shall be kept clear of obstruction at all times.

¹ Fire retardant treatments shall achieve a Class 1 surface spread of flame classification as described in the current Building Regulations.

- 7.5 Grass shall be cut as short as possible before the erection of tents is commenced, and cuttings should be cleared away to a safe place.
- 7.6 Access to hydrants and other water supplies shall not be obstructed or obscured.
- 7.7 Car parks shall be provided well clear of all tents and on no account should parking be allowed in tent lanes or roadways.

8. MEANS OF ESCAPE

- 8.1 All tables, seating, stalls, props and equipment must be sited to ensure that a clear path of sufficient width is maintained at all times.
- 8.2 Opening flaps in the perimeter wall of the marquee are not acceptable as an alternative to exit doors, as past experience has shown these to be inadequate. However, open sides or large areas of open side may be considered acceptable.
- 8.3 The required minimum width of any final exit in relation to the number of occupants who may have to use it should be determined by table below:

Minimum clear width of exit	Number of persons	
1.05 metres	1 to 160	
1.65 metres	161 to 240	
1.95 metres	241 to 320	

8.4 An allowance must be made for the fact that one exit may be obstructed and not available because of fire, smoke or other hazards. Exits located within a 45 degree radius should be regarded as one exit for the purpose of calculating the number of exits required.

GUIDANCE

Final exits should be distributed evenly around the structure so that viable alternative routes are available from all parts.

Exit routes may discharge through an adjacent room, provided that there is a clear and direct path to a final exit.

The distance of travel from any point should not exceed 18 metres.

8.5 Exit routes, both internal and external, must be maintained free of all obstructions caused by the superstructure of the marquee, temporary fixings, etc. Furthermore, where a change of level has to be negotiated on any exit route, easygoing ramps shall be provided (in preference to steps) with a maximum gradient of 1:12.

8.6 Where necessary, illuminated safety signage shall be provided above each of the exits. All fire safety signs shall comply with current regulations for safety signs.

GUIDANCE

Additional safety signs may prove necessary to ensure that exit routes may be followed; however, this can only be assessed at the time of use. Signs should be conspicuously illuminated by the normal lighting at all times when the premises are in use. Where necessary, provision should also be made for the signs to be illuminated by the escape lighting system to ensure visibility in the event of mains failure.

9. LIGHTING

- 9.1 The normal lighting should adequately illuminate all internal and external routes of exit and be switched on at all times during the event when natural lighting is insufficient. Naked flames are not to be used as a means of illumination.
- 9.2 Where necessary, emergency escape lighting shall be provided throughout the covered areas and if necessary to those parts of the site outside the marquee which form exit routes.

10. FIRE WARNING ARRANGEMENTS

- 10.1 Where necessary, a fire alarm system, incorporating facilities for public address, shall be provided throughout the area. The system shall come into operation on the actuation of any fire alarm call point, the positions of which are to be agreed with the DFRMO Fire Safety Specialist. The alarm signal must consist of a distinct tone of not more than five seconds duration, audible over the public address system, followed by a pre-recorded message, repeated continuously until terminated at the main control.
- 10.2 The text of the evacuation message should be as follows, given clearly and concisely:

"LADIES AND GENTLEMEN." IN THE INTEREST OF SAFETY, THE ****** MUST BE EVACUATED. PLEASE LEAVE IMMEDIATELY BY THE NEAREST EXIT. ATTENDANTS WILL ASSIST YOU."

GUIDANCE

For certain uses which take place in small to moderate size structures, a simpler type of fire alarm system may be acceptable.

The fire alarm should be tested daily before the event commences.

10.3 The Responsible Person or deputy shall ensure that the Emergency Services have been informed and the marquee, tent or similar structure is completely cleared of persons.

GUIDANCE

A suitable means and location for summoning emergency services should be identified prior to the event and should be readily available at all material times. The fire services should be called immediately to every outbreak of fire. Instructions as to the location of and the method of calling the fire brigade should be prominently displayed.

10.4 Fire Alarm cables shall be fixed in position and where necessary protected against mechanical damage.

11. FIREFIGHTING EQUIPMENT

- 11.1 Suitable fire extinguishers shall be provided and evenly distributed throughout the marquee area. The precise positions for these should be determined after discussion with the DFRMO Fire Safety Specialist when the marquee is being erected. Suitable fire extinguishers shall be provided and sited adjacent to the main electrical switchgear for the marquee.
- 11.2 Fire blankets shall be provided in a prominent position (where possible) within any food preparation area, where cooking takes place.

12. DECORATIONS

12.1 For safety reasons the use of camouflage nets, parachutes and similar materials for decorative purposes is prohibited. Combustible decorations are to be restricted to a minimum. Decorations shall not be positioned where they may ignite or materially increase the fire hazard. In particular, all decorations shall be positioned with due regard to means of escape routes. Due regard shall also be paid to the effect of draughts.

13 HEATING/COOKING

13.1 Any form of heating or cooking to be provided within the structure must be agreed with the DFRMO Fire Safety Specialist.

GUIDANCE

Cooking should preferably be carried out in a separate structure. Cooking appliances should be positioned clear of tent walls, roofs and other combustible materials and supervised at all times. They should not be left unattended whilst in use.

14. ELECTRICAL INSTALLATIONS

14.1 All electrical wiring and apparatus shall comply with the 'Requirements for Safety" cited by the IEE 'Regulations for the Electrical Equipment of Buildings (Temporary Installations); and, so far as possible, be clear of canvas and positioned where it cannot be tampered with.

If generators are used, they should be positioned at a safe distance outside the marquee; clear of tents, and under the supervision of a competent person at all times.

14.2 All electrical installations are to be installed by qualified and competent persons.

15. FIRE SECURITY

- 15.1 When the event has finished, a thorough check of the whole area shall be made to ensure that nothing that may present a fire hazard remains.
- 15.2 With the exception of authorised essential systems that must continue to operate after normal working hours, all electrical appliances and lighting systems are to be switched off and disconnected by nominated person.

16. RELATED DOCUMENTS

JSP 426 Vol 2:

- Leaflet 1 Enforcement of Fire Safety Legislation.
- Leaflet 3 Fire Safety Management Plans (FSMP).
- Leaflet 4 Fire Risk Assessment (FRA).
- Leaflet 7 General Fire Precautions.
- Leaflet 10 Fire Safety for Tented Camps in Support of Operations and Exercises.

Other MOD Guidance:

- JSP 375 Leaflet 12 Safety when Working with Electricity and Electrical Equipment.
- JSP 375 Leaflet 44 Safety Signs.
- JSP 375 Leaflet 57 Managing Safety at Public Events.

Legislation and Guidance:

- The Regulatory Reform (Fire Safety) Order and allied legislation as applicable to MOD in Scotland and Northern Ireland.
- DCLG Guidance Fire safety at Open air events and venues.
- British Standard (BS) 5438 Methods of test for flammability of textile fabrics when subjected to a small igniting flame applied to the face or bottom edge of vertically oriented specimens.
- BS 7837 Specification for Flammability Performance for Textiles Used in the Construction of Marquees and Similar Textile Structures.
- BS 476: Part 12: Fire tests on building materials and structures. Method of test for ignitability of products by direct flame impingement.