



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*



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## PREFACE

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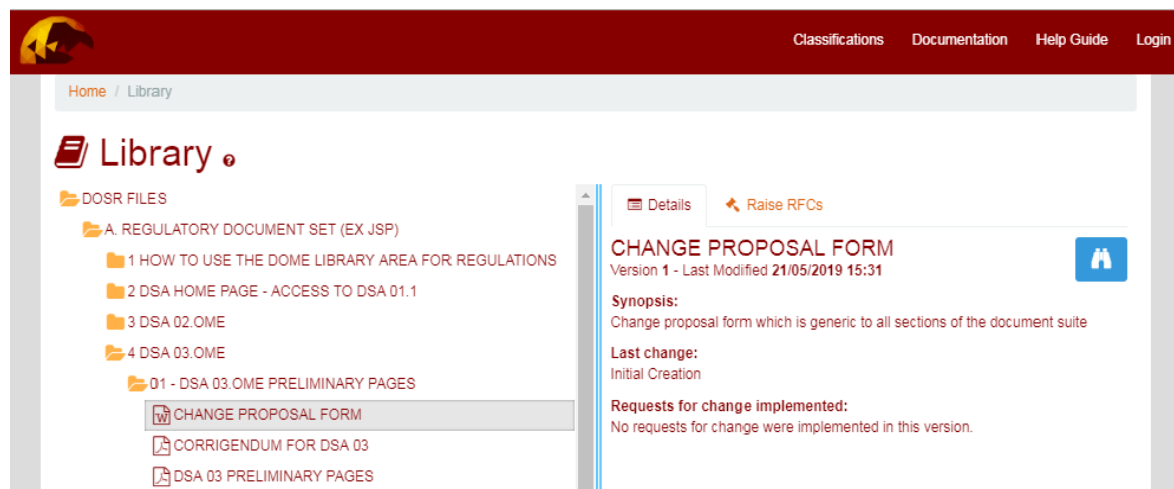


Figure 1. Change Proposal Form (Word version) Location

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## **CHAPTER 9**

### **SAFETY REPORT COMPLETION GUIDANCE**

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#### INTRODUCTION

1. The Safety Report (SR) is designed to be a user-friendly document which enables the establishment to produce the necessary reports required by MACR in a straight forward and systematic way.
2. Each Upper Tier MACR establishment will receive a copy of the Safety Report that will be partially completed, drawing upon the information already held by the MACR CA SG from notification.
3. The guidance in this chapter provides supporting information to enable a Major Accident Control Regulations (MACR) qualifying establishment at Upper Tier level to complete their SR. The format for a SR is the same across MoD. Note: Defence Munition sites are developing a Safety Management tool – Assurance & Safety Case Environment (ASCE) to capture and display a wide range of safety related information. This tool may be used to generate the SR as it incorporates all the MACR requirements. The guidance below will still be applicable with respect to the required detail.

4. The word format has been developed as a “form” to enable the use of drop down boxes. Each form has to be protected in order to activate the drop-down boxes. If any establishment identifies a requirement to alter the format the form will need to be un-protected. Please contact the MACR CA SG to discuss the issue. Note Section 11 is not protected to allow easy updates for the synopses which will be provided by the MACR CA SG. Any areas of concern or uncertainty should be brought to the attention of the MACR CA SG so that a decision can be made and the form or supporting information amended if necessary. Each box which requires the entry of information has either a drop down menu or a data entry field. To move to the next box press the Tab key.

Section 2Table 2.1 Establishment Address Information

**Establishment Name** - Insert establishment name e.g. RAF Nonsuch.

**Budget Holder** - Select top level budget holder from drop down list.

**Service** - Insert Relevant Service.

**MACR Contact Number** – insert telephone number, this will normally be the telephone number for the MACR Co-ordinator for the establishment utilising the MoD dialling code.

**Establishment Activity** - Insert description of main activity at establishment – a brief description only is required e.g. for RAF station “Military Airfield”, for OFD “Bulk Fuel Installation”.

**Fax Number** - Insert Fax number for MACR Co-ordinator.

**Establishment Address** - Insert establishment address utilising the 7 boxes as required (note Country is selected via drop down box).

**MACR Civilian Number** - Insert telephone number using civilian code, this will normally be the MACR Co-ordinators number.

**E-mail Address** - Insert e-mail address – this could be MACR Co-ordinators e-mail unless a more generic e-mail address for the establishment is considered more appropriate.

**Emergency Contact** - Insert emergency contact name and telephone number – this will normally be contact number for Establishment Main Controller in Emergency Control Centre. This is intended for use during an emergency situation.

**Local Authority** - Insert name(s) of Local Authority which covers the establishment. For overseas establishments this could be the local government eg Administrator Sovereign Base Area for the MACR establishments in Cyprus.

**Date Updated** - Insert date at which last changes have been made to the SR or date which SR was last reviewed. Please note that SR should be reviewed on regular basis (at least annually) or at any significant change.



Section 3Table 3.1 Holdings of Dangerous Substances

Select the appropriate dangerous substance from the drop-down box. Against each dangerous substance selected insert the maximum anticipated quantity. This is the best estimate of the maximum quantity it is anticipated could be held, looking forward over the next 5 years. It is NOT, the actual holdings at any one moment in time or the average holdings. It could be the authorised limit from an explosives licence if holdings are anticipated to be up to the authorised limit within a 5 year period. For bulk fuel tanks the quantity will often be the licensed capacity of the tank even though the holdings may be at this level for short periods only. For explosives facilities a degree of judgement is required particularly where a facility may have differing quantities of explosives allowed dependant upon the aggregation rules. Note: explosives Hazard Divisions 1.1, 1.2 and 1.3 are aggregated together and have the same threshold level. Hazard Division 1.4 is shown separately.

### Section 3

#### Table 3.2 Named Substances

This table indicates if the named substances are present on the establishment. All that is required is a cross entered in the adjacent box. Clicking in the box will automatically insert a cross (a further click will deselect and therefore remove the cross).

## Section 4

### Table 4.1 Establishment Organisation

The first 4 lines of this table are already started. The posts shown are the minimum requirements. Each establishment should consider what posts undertake a significant role in the emergency response and additional lines should be completed for each position. Anyone who requires specific training to undertake their role in the emergency response is likely to be regarded as playing a significant role. Under the document reference column insert details of which document shows the responsibilities for each position.

All positions with a significant role to play should be subject to a competence assessment to determine what competencies are required in order to adequately discharge the required role. A training needs analysis should then be undertaken to determine what training is required for each position. The last column should show what the training needs are. These training needs may vary from particular training courses, participation in live exercises, participation in control post or table top exercises to simple briefing sheets.

## Section 5

### Table 5.1 Installations and Risk Assessments

Background - The start point for this section is the Hazard Survey which should have been completed to meet JSP 375. That should enable each establishment to identify all facilities / buildings on the establishment which hold (or are anticipated to hold) dangerous substances. Each facility / building can be considered as a hazardous installation. Whilst it is acceptable for each installation to be considered separately the workload for the establishment can be reduced by grouping facilities / building together where the hazard and the controls are the same. For instance an explosives storage area consisting of 12 buildings within a compound can be regarded as a single installation. Most controls relevant to that type of facility are contained within JSP 482. A group of bulk fuel tanks within an Oil Fuel Depot can be grouped, particularly if they share a common bunded area.

Each Installation has a complete page. Provision has been made for up to 20 installations which is expected to be sufficient for most establishments. If additional installations need to be catered for please contact the MACR CA SG to discuss options.

Name – insert into column the name of the single facility or the grouped facilities e.g. Northern ESA or Fuel Tanks 1 to 4.

Function – insert description of the function / activity expected to be carried out at the installation

Location – Provide adequate information to determine the location on the establishment. This could be by using a grid system or OS map designators. If your hazardous installations map is colour coded this could be orange area on Hazardous Installations map. The intention is to describe the boundaries of the installation by whatever method is feasible at the establishment.

Hazard Description – provide description of the hazard(s) present (or anticipated will be present) at the installation as identified in the hazard survey.

Existing Controls – describe what controls are relevant to the installation. This can be generically such as reference to JSP's or more specific such as reference to work instructions or individual elements of the JSP's or work instructions e.g. use of explosives licences.

Hazard Assessment Number – Insert relevant assessment number – this is probably the appropriate section from the Site Risk Assessment although could be the Hazard Survey reference number.

Risk Assessment Number(s) – insert risk assessment number – this could be a single risk assessment (particularly if MACR specific assessments have been carried out) or a number of assessments which collectively cover the hazards at each installation. Many establishments have made use of a suite of risk assessments which have been carried out to meet the requirements of JSP 375, either methodology is acceptable.

Identified Risks – List the risks identified as present at the installation i.e. those risks which the control measures are intended to mitigate.

Residual Risks – List those residual risks left after control measures have been applied. It is not feasible to reduce all risks to zero without removing the

dangerous substances from the establishment. The risk can be reduced to an acceptable level. Because we are dealing with Major Accidents the consequence rating on the risk assessment proforma should be 3 or 4 utilising the JSP 375 criteria. This would normally result in a review of existing controls. It is accepted that from a MACR perspective there may be residual risks which are at an acceptable level and improving control measures may not be feasible without undue cost or restrictive practices which prejudice operational capability. Such situations should always be adequately documented.

Numbers of personnel at risk – numbers of people who could be immediately affected by the consequences of a Major Accident need to be identified. For upper establishments this process identifies the Public Information Zone (PIZ) – see chapter 3 Annex A. The zone broadly equates to the Purple Line (2 X IBD) for explosives facilities, 200 metres from LPG farms and 1000 metres from bulk fuel tanks. The numbers of people within those zones should be broken down into 3 categories; Service personnel – MoD employed civilians – other, which includes contractors and any members of the public. This information is valuable in assessing the potential size of an incident (deaths / casualties). The assessment information used to arrive at these figures should be recorded and be available during the MACR Assessment.

Description of process undertaken at installation – Insert description of the work processes which are expected to be undertaken at the installation e.g. processing of conventional explosives, Issue receipt and storage of aviation fuel F35. Sufficient detail is required in order to allow a basic understanding of the activity.

Type of Dangerous Substance held – utilising the drop down box select the appropriate substance from the list provided. Majority of the significant dangerous substances commonly in use within MACR qualified establishments are shown. If your particular substance is not shown use the “other” designation. The box and its adjacent quantity are repeated 4 times and further boxes should be used to cover each dangerous substance at the installation.

Quantity Present – insert quantity in Tonnes equivalent to the maximum anticipated level.

Section 6Table 6.1 Major Accident Scenario's

For each installation insert details of the reasonably foreseeable Major Accident scenarios relevant to the installation. Sufficient detail is required in order to understand the feasible scenarios and the implications and therefore consequences of such an event occurring. See Chapter 2 Annex A for information on what needs to be covered by the scenario information. Note: A single entry may be made for a number of identical installations if the Major Accident scenarios and consequences are the same.

## Section 7

### Table 7.1 Emergency Plan Information

Insert into the table details of the on-site plan. This could be single coherent plan or could be a series of plans covering different aspects e.g. Fire, Oil Spill Response, LOX incident etc.

Insert details of the off-site plan – this plan will be compiled by the Local Authority.

Forward Exercise Plan Location – insert details of where the Forward Exercise Plan or plans are held. This could be in an appropriate file or on an Establishments Intranet.

Section 7Table 7.2 Emergency Exercise Information

Date of Last Exercise – insert date on which the last live exercise held in conjunction with the Local Authority and the Emergency Services was undertaken.

Post Exercise Reports – insert location where post exercise reports are stored (records need to be kept for a minimum of 3 years).



## Section 8

### Table 8.1 Environmental Information

Background - This section aims to capture environmental information about the establishment. All of the required information will be contained in the Environmental Risk Assessment (ERA) undertaken in line with Chapter 2. ERA Reference – insert details of the ERA, this would normally be a single document but could include supporting documents such as land quality assessments or review sheets.

The environment description box should contain information on the main environmental factors relevant to the establishment particularly noting those aspects which show vulnerabilities to a Major Accident e.g. the presence of a significant aquifer under the establishment.

A range of types of protected habitats are shown, under the numbers column the quantity of each protected habitat should be shown. The intention is to highlight any particularly vulnerable areas with more details being provided within the ERA.

## Section 8

### Table 8.2 – Topography

Establishment Topography – insert details of the main topographical information relevant to the establishment (this will probably come from the ERA).

For each Installation insert details of the local topography. This is required if the local topography is significantly different from the general establishment and could therefore lead to different consequences in the event of a Major Incident e.g. if one installation is adjacent to a SSSI the consequences of the same pollution incident could be much greater from that installation than if the incident occurred elsewhere on the establishment where other installations, pathways and receptors are different.

## Section 9

### Table 9.1 Management of Change

Management of Change arrangements – this table should provide guidance on where the systems are documented to control changes in the 3 categories shown.

Changes to Installations – this is mainly works actions where physical alterations are to be made to the infrastructure of buildings. Normally these are covered in JSP 434 or Defence Infrastructure Organisation RPC Instructions. They are often supplemented by specialist guidance e.g.

Explosives facilities – JSP 482, Bulk Fuel Installations – JSP 317 and JSP 375 Volume 3.

Changes to processes – this relates to changes in the work processes. These are normally governed by Safe Systems of Work (process documentation).

Specialist JSP's or individual process instructions will usually cover how changes to the process are to be agreed and implemented: e.g. for explosives – JSP 482 / TIADS / MECPS / Approval to Process, Fuel processing – JSP 317, LOX – JSP 319.

Changes to Storage – Changes to storage methodologies will often be covered in centrally mandated documents e.g. Explosives – JSP 482 / Approval to Store and Handle Explosives, Fuels – JSP 317, LOX – JSP 319.

Section 9Table 9.2 Audit & Review

SMS – insert details of where SMS auditing can be found – principles are laid down in JSP 375 – this will normally be copies of audits carried out on an establishment by agencies outside of the establishment e.g. audits by CESO(RAF) on RAF Stations to 3 yearly programme.

EMS – insert details of where EMS auditing can be found – principles are laid down in JSP 418 – this will normally be copies of audits carried out on an establishment by agencies outside of the establishment e.g. audits by CESO(RAF) on RAF Stations to 3 yearly programme.

Section 10Table 10.1 PIZ Information

Details of PIZ evaluation kept in: Insert details of which establishment file the PIZ records are kept in.

Dropdown box which will read yes or no depending upon whether the PIZ has been set in accordance with the standard protocol in JSP 498.

If answer to above question is No then the establishment should hold a copy of the MACR CASG letter authorising a variation and the details of the change are inserted here.

Details and location of PIZ map – the area covered by the PIZ should be plotted on a map of the local area. Confirm location of the PIZ map either by file reference or physical location such as held in ECC.

PIZ letter held in file – self explanatory.

Date of PIZ Letter - self explanatory.

Date of last review - self explanatory but note a review is required at least every 3 years and a reissue every 5 years even if no information has changed.