| MOD              | SMS Procedures | Procedure<br>SMP03 |
|------------------|----------------|--------------------|
| SMP03: Safety Pl | anning         | Page<br>1          |

#### 9 SHOWING CONFORMANCE

## 0.1 Options

- 0.1.1 There are four options to demonstrate conformance when applying this system procedure:
  - a. Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.
  - b. Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.
  - c. Use a bespoke process and tool set for the project and document how the bespoke procedure achieves the objectives defined for this system procedure.
  - d. Where the procedure is considered to be not relevant, document the basis for this decision.

## 1 INTRODUCTION

- 1.1.1 The objectives of a Project Safety Programme are twofold:
  - a. To ensure that the Safety performance of the system is acceptable throughout its life;
  - b. To provide and maintain adequate assurance information that this is being achieved.
- 1.1.2 These objectives can only be realised by following a co-ordinated and structured approach to Safety throughout the system life cycle. This encompasses setting appropriate Requirements as well conducting Risk Management as an integral part of system development.
- 1.1.3 Separate Plans are required to be produced both by the MOD Project and by the Contractor. Each Plan defines the Safety activities to be conducted by that organisation, so they are closely related to each other. The programmes that they contain will also be linked to activities of system development, trials and any safety approvals required. Similarly, the ISA's Audit Plan will also be linked to these activities.
- 1.1.4 This procedure is concerned with the Safety Management Plan (SMP) for the MOD Project rather than plans produced by the Contractor or ISA.

# 1.1.5 A **Safety Management Plan** is defined in Def Stan 00-56 Issue 4 as:

| Issue                             | Authorised by CESO DE&S | ISSUE LEVEL: | Release V2.2s    |
|-----------------------------------|-------------------------|--------------|------------------|
| Approval                          | Authorised by DG S&E    | DATE:        | November<br>2007 |
| DOCUMENT IS UNCONTROLLED IN PRINT |                         |              |                  |

| MOD              | SMS Procedures | Procedure<br>SMP03 |  |
|------------------|----------------|--------------------|--|
| SMP03: Safety Pl | anning         | Page 2             |  |

"A document that defines the strategy for addressing safety and documents the Safety Management System for a specific project."

1.1.6 The **Safety Programme** is defined in Def Stan 00-56 Issue 4 as:

"The part of the Safety Management Plan that documents safety timescales, milestones and other date-related information."

#### 2 PROCEDURE OBJECTIVES

- 2.1.1 The SMP details the MOD's Safety Management Activities for the Project and therefore:
  - a. Ensures that Safety responsibilities are recognised and properly allocated;
  - b. Defines the Safety Programme timescales and so supports the timely completion of tasks and identification of any slippage.

### 3 RESPONSIBILITIES

- 3.1 Accountability
- 3.1.1 The IPTL is accountable for the completion of this procedure.
- 3.2 Procedure Management
- 3.2.1 The IPTL may delegate the management of this procedure to a member (Safety Manager) or members of the IPT.
- 3.3 Procedure Completion
- 3.3.1 The Project Safety Committee (PSC) is responsible for drafting and endorsing the SMP and agreeing the safety targets, requirements and acceptance criteria. It is important that all organisations with Safety responsibilities described in the SMP should review the SMP described and agree that it is accurate.
- 3.3.2 The SMP endorsed by the PSC shall be accepted formally by the MOD delegated Authorities for Procurement, Support and Operation.

#### 4 WHEN

#### 4.1 Initial Production

4.1.1 The SMP should be produced on behalf of the IPT Leader at the earliest stage of the project, eg at the beginning of the Concept stage and be updated as the project progresses through the acquisition stages.

|                                   | ISSUE LEVEL: | Release V2.2s |
|-----------------------------------|--------------|---------------|
| DOCUMENT IS UNCONTROLLED IN PRINT | DATE:        | November 2007 |

| MOD              | SMS Procedures | Procedure<br>SMP03 |
|------------------|----------------|--------------------|
| SMP03: Safety Pl | anning         | Page 3             |

# 4.2 Review, Development and Acceptance

- 4.2.1 It is recommended that the SMP should be reviewed to a predetermined project programme particularly if there are major changes to the programme. It must accurately record arrangements and should be reviewed at each meeting of the PSC, or at least annually.
- 4.2.2 The SMP endorsed by the PSC shall be accepted formally by the MOD delegated Authorities for Procurement, Support and Operation. When any of the signatories change, the SMP shall be re-issued and formally accepted again by these delegated Authorities.
- 4.2.3 The SMP evolves as the project matures and additional information becomes available or decisions are made. Early iterations will only outline broad safety strategies and goals; later iterations will become more definitive. This will enable important safety management tasks to be carried out during the subsequent acquisition stages.

## 5 REQUIRED inputs

- 5.1.1 This procedure for Safety Planning requires inputs from:
  - a. Outputs from Procedure SMP01 Safety Initiation;
  - b. Outputs from Procedure SMP02 Safety Committee.
- 5.1.2 The SMP must be integrated with other management plans produced by the IPT Leader throughout the Acquisition Cycle to ensure its effectiveness. It shall also be of sufficient detail to stand alone for all safety planning activities.
- 5.1.3 The development of the SMP will be based on the following:
  - a. Overall Project Programme;
  - b. URD and SRD;
  - c. TLMP;
  - d. Existing descriptions of the Safety Management Arrangements for organisations involved in the Project (eg IPT SMS descriptions).

### 6 REQUIRED OUTPUTS

## 6.1 Safety Plan

6.1.1 The SMP defines the strategy for addressing safety and interprets the Safety Management System for a specific project. It also contains the Safety programme which documents safety timescales, milestones and other date-related information.

|                                   | ISSUE LEVEL: | Release V2.2s |
|-----------------------------------|--------------|---------------|
| DOCUMENT IS UNCONTROLLED IN PRINT | DATE:        | November 2007 |

| MOD              | SMS Procedures | Procedure<br>SMP03 |
|------------------|----------------|--------------------|
| SMP03: Safety Pl | anning         | Page<br>4          |

6.1.2 The SMP may be based on Guidance Sheet SMP03/G/01 – Template for Project Safety Management Plan.

# 7 Description

- 7.1.1 The MOD Project SMP forms an essential element of the Through Life Management Plan (TLMP). Each project requires a SMP explaining how the IPT Leader will demonstrate that the system will be tolerably safe throughout its life.
- 7.1.2 The publication and agreement of the arrangements detailed in the SMP should be the mechanism through which the MOD through-life safety management of the equipment is established. The SMP is the formal record of the way the MOD manages safety for a Project.

## 7.2 Scope

- 7.2.1 The SMP must consider all aspects of equipment safety including, but not restricted to:
  - a. General Equipment Safety;
  - b. System specific requirements ie. Airworthiness, Ship Key Hazards etc;
  - c. Occupational Safety ie. Manual Handling, Packaging, Transport and Storage, Control of Substances Hazardous to Health etc;
  - d. Safety of Operation;
  - e. Infrastructure interfaces;
  - f. Maintenance;
  - g. Training;
  - h. Disposal.
- 7.2.2 The SMP must be detailed for the current stage of the Acquisition cycle but must also define a workable Safety strategy for all the remaining stages, including Disposal. This Safety strategy covers both the MOD's input to Safety engineering and Safety Assurance aspects, including Safety Case development and Safety Approvals.

#### 7.3 Content

- 7.3.1 The Project SMP should contain the following information:
  - a. Outline Description. Description of the equipment, clearly defining the purpose and capability expected (and eventually achieved) of the project. Clearly identify the range, or variants, of the equipment covered, its purpose, operating

|                                   | ISSUE LEVEL: | Release V2.2s |
|-----------------------------------|--------------|---------------|
| DOCUMENT IS UNCONTROLLED IN PRINT | DATE:        | November 2007 |

| MOD              | SMS Procedures | Procedure<br>SMP03 |
|------------------|----------------|--------------------|
| SMP03: Safety Pl | anning         | Page 5             |

cycle and environment and defining interfaces with other equipments and levels of competence expected of the operator(s).

- b. Safety Management System. Details of the Safety Management System including its aims and objectives, the managerial and technical tasks to be undertaken and the organisation responsible for implementing them;
- c. Responsibilities and Resources. The management structure, responsibilities, resources and interfaces with contractors necessary for the implementation of the safety programme. This should include the roles and details of all personnel involved throughout the life of the project. It should include the IPT Leader, Project Safety Officer, ECC, Maintainers, Users and the Project PSC. The reporting chain should be identified within the plan. A RACI Chart should be used to define the responsibilities and accountabilities of the authorities involved in the implementation of the MOD Project Safety Programme;
- d. Audit. Details of the audit arrangements for the project, including internal and independent audits;
- e. Requirements, Objectives, Targets and Acceptance. A definition of the safety requirements, objectives, targets, regulation, licensing and certification requirements and acceptance criteria for the project. Details of statutory safety standards, legislation and regulations, and any restrictions or exemptions that may apply. The means and criteria by which the requirements are to be demonstrated and accepted are to be clearly defined (these elements will form part of the technical requirement for the project and will become deliverables under the contract);
- f. Scope of the Safety Case. Clearly identify the range and variants, of the equipment covered, its purpose, operating cycle and environment to be covered eg. the operating envelope;
- g. Safety Case Strategy. The definition of the strategy to be followed for the Safety Assessment. This should give a full breakdown of all the techniques to be used to identify, analyse, assess and control hazards;
- h. Safety Programme. The programme of work that identifies and schedules the tasks contained in the previous paragraphs. This programme should be linked to key stages in the TLMP.
- 7.3.2 For further guidance an outline Project SMP has been provided in **Guidance Sheet SMP03/G/01** Template for Project Safety Management Plan. Further advice is available from the FSMOs.

|                                   | ISSUE LEVEL: | Release V2.2s |
|-----------------------------------|--------------|---------------|
| DOCUMENT IS UNCONTROLLED IN PRINT | DATE:        | November 2007 |

| MOD              | SMS Procedures | Procedure<br>SMP03 |
|------------------|----------------|--------------------|
| SMP03: Safety Pl | anning         | Page<br>6          |

## 8 RECORDS and project documentation

- 8.1.1 Where relevant, the outputs from this procedure should feed into the following:
  - a. SRD (System Requirements Document) for any specific Safety requirements;
  - b. CSA (Customer Supplier Agreement) to document agreements on Safety information to be delivered by the IPT;
  - c. TLMP (Through Life Management Plan);
  - d. Safety elements of Initial Gate and Main Gate submissions.
- 8.1.2 PSC meeting minutes should record the review of the SMP and any decisions made regarding its amendment and up-issue.

#### 9 RECOMMENDED TOOLS and forms

### 9.1 General SMP Template

- 9.1.1 **Guidance Sheet SMP03/G/01** is a general template for a MOD Project SMP. It should not be confused with the requirement of Defence Standard 00-56 for the contractor to produce a Safety Plan.
- 9.1.2 Devising a general plan is not practical: each plan must be tailored to its project and goals.

### 9.2 RACI Chart

9.2.1 **Guidance Sheet SMP03/G/02** - RACI Chart, is an example of a RACI Chart which might be used as part of a Project SMP to define the responsibilities and accountabilities of the authorities involved in the implementation of the MOD Project Safety Programme.

### 10 Guidance

### 10.1 General Guidance

- 10.1.1 Where it is considered beneficial, a combined Plan may be produced for the Safety and Environmental Management activities. It should be ensured that the programmes are aligned as far as possible and that data is shared where relevant.
- 10.1.2 The SMP may cover groups of similar projects within an IPT where common activities are required, although separate plans are envisaged for very large, high risk or diverse projects within an IPT.

|                                   | ISSUE LEVEL: | Release V2.2s |
|-----------------------------------|--------------|---------------|
| DOCUMENT IS UNCONTROLLED IN PRINT | DATE:        | November 2007 |

| MOD                    | SMS Procedures | Procedure<br>SMP03 |
|------------------------|----------------|--------------------|
| SMP03: Safety Planning |                | Page 7             |

## 10.2 Alignment with Environment

10.2.1 The key alignment opportunity in SMP03 is to plan assessment studies which can meet both safety and environmental evaluation requirements. Where this is not possible, the SMP should define mechanisms to ensure that results of safety assessments are reviewed for environmental implications and vice versa.

## 10.3 Domain-Specific Guidance and References

- 10.3.1 Additional guidance on Project Safety Plans is contained in the following references:
  - a. Land Systems: JSP 454 Issue 4:
    - i. Policy Description, purpose, agreement and review.
  - b. Ship Safety Management: (JSP 430 Issue 3):
    - General: Part 1 Section 8.1;
      Safety Plan (8.2)
  - c. Airworthiness: (JSP 553 1st Edition):
    - Guidance notes: Annex P;
      Safety Plan (2.42)(4.5)(Annex P); Good Practice (Annex P); Plan updates (Annex P)
  - d. Ordnance, Munitions & Explosives (OME): (JSP 520 Issue 2.0):
    - i. Policy;Safety Plan

## 10.4 Guidance for Different Acquisition Strategies

10.4.1 The requirements for safety and environmental performance do not change for Acquisition conducted through intergovernmental agreements, OCCAR, multilateral or collaborative programmes. It is MOD policy that the same standards are met, and that assurance that these standards have been met can be demonstrated. New methods of procurement often mean that the supplier takes the lead in assuring compliance for the project, often directing trials and testing in-house. But the UK version must still be supported by an IPT managed Safety Management Plan and Safety Case(s), in the appropriate format, to meet the UK policy requirement for acceptance. This is even if much of the information to populate these documents comes from the supplier, or other customers' programmes of trials and testing, provided it is correctly interpreted according to UK and EU policy and law. MOD must maintain a suitable body of 'evidence' which it can use to legally defend itself, and its management decisions.

### 10.5 Warnings and Potential Project Risks

|                                   | ISSUE LEVEL: | Release V2.2s |
|-----------------------------------|--------------|---------------|
| DOCUMENT IS UNCONTROLLED IN PRINT | DATE:        | November 2007 |

| MOD                    | SMS Procedures | Procedure<br>SMP03 |
|------------------------|----------------|--------------------|
| SMP03: Safety Planning |                | Page<br>8          |

- 10.5.1 The SMP is the principal mechanism for managing Project Risks due to the Safety activities. If the Plan is not accurate or is not kept up to date, then the effects of delays in the Safety activities or changing Project timescales may not be recognised and managed.
- 10.5.2 If the SMP is not sufficiently detailed, then required Safety activities may not be identified and planned into the programme. This may have adverse effects on the Project time and cost once the missing activities are recognised and performed. If the requisite activities are not undertaken at all, then either the Safety performance may not be adequate, or the necessary Safety assurance evidence may not be generated. The former would lead to avoidable accidents and the latter to an inadequate Safety Case that might prevent the system being accepted into service.
- 10.5.3 If the SMP is not reviewed and endorsed by the PSC, then it is possible that the Project SMS described in the Plan may not be an accurate reflection of the Safety responsibilities as understood by other parties. The programme of activities contained in the SMP might not be achievable if resources required are not available at the times assumed.

|                   |                                   | ISSUE LEVEL: | Release V2.2s |
|-------------------|-----------------------------------|--------------|---------------|
| DOCUMENT IS UNCON | DOCUMENT IS UNCONTROLLED IN PRINT | DATE:        | November 2007 |