DATA ITEM DESCRIPTION

1. DID NUMBER: DID-ENG-IMSP-
2. TITLE: In-Service Materiel SAFETY PLAN
3. DESCRIPTION and intended use

The In-Service Materiel Safety Plan (IMSP) describes the Contractor’s system-safety management and engineering program, undertaken to ensure that the Materiel Safety of applicable Products is maintained.

The Contractor uses the IMSP to:

define, manage and monitor the system-safety program for the Contract;

ensure that those parties (including Subcontractors) who are involved in the system-safety program understand their respective responsibilities;

demonstrate that it has the capability and capacity to meet its Materiel Safety responsibilities, particularly in relation to the ADF regulatory / assurance framework applicable to the Contract; and

define the Contractor’s relationship with, and expectations for, Commonwealth involvement in the management of Materiel Safety.

The Commonwealth uses the IMSP to:

gain visibility into the Contractor’s approach to ensuring Materiel Safety;

gain assurance that the Contractor’s system-safety program will meet the Materiel Safety requirements of the Contract, including ADF regulatory / assurance framework-specific requirements;

plan the integration of the Contractor’s system-safety program activities with the Commonwealth’s system-safety program; and

provide input into the Commonwealth’s system-safety program planning.

1. INTER-RELATIONSHIPS

The IMSP is subordinate to the Contractor Engineering Management Plan (CEMP).

The IMSP inter-relates with the following data items, where these data items are required under the Contract:

Configuration Management Plan (CMP);

System Safety Program Plan(s) for Major Changes;

Safety Case Report (SCR);

Health and Safety Management Plan (HSMP);and

Safety Data Sheets (SDSs).

Where the Contract follows a Contract (Acquisition), the IMSP will inter-relate with the Contract (Acquisition) System Safety Program Plan.

1. Applicable Documents

The documents identified under clause 6.2.7 of DSD-ENG-SERV apply to this DID.

1. Preparation Instructions
   1. Generic Format and Content

The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled ‘General Requirements for Data Items’.

When the Contract has specified delivery of another data item that contains aspects of the required information, the IMSP shall summarise these aspects and refer to the other data item.

The data item shall include a traceability matrix that defines how each specific content requirement, as contained in this DID, is addressed by sections within the data item.

* 1. Specific Content
     1. In-Service System Safety Program Scope and Objectives

The IMSP shall outline the system-safety program, including:

the scope of the system-safety program, including the Products for which Materiel Safety will be addressed under the Contract;

the system-safety objectives and role to be undertaken by the Contractor; and

significant organisational relationships, particularly where the Commonwealth or another party has a lead responsibility for maintaining Materiel Safety.

* + 1. Applicable Documents

The IMSP shall list the system-safety program references identified in the SOW (including DSD-ENG-SERV), and any other regulations, standards and relevant references to be used by the Contractor.

* + 1. Materiel Safety Certification

Note: As part of the system certification baseline, the Materiel Safety certification basis may be managed by Defence or an Associated Party, with input from the Contractor.

The IMSP shall, for the applicable Products Being Supported, identify the:

original and current Materiel Safety certification basis;

current Materiel Safety documentation baseline; and

the party responsible for managing the certification basis, if not the Contractor.

* + 1. System Safety Organisation and Roles

The IMSP shall describe the organisations and the roles of the organisations involved with the system-safety program, including:

within the Contractor’s organisation;

Subcontractors; and

Associated Parties, including Defence agencies, regulatory authorities and original equipment manufacturers, as applicable.

The IMSP shall identify the qualifications and training required by persons filling the Key Staff Positions for the system-safety program within the Contractor’s organisation.

* + 1. System Safety Program Integration

The IMSP shall describe how system-safety program information will be communicated and coordinated with Subcontractors and Associated Parties, through SOW clause 3.6.

Where the Contractor does not have system-level safety responsibilities, the IMSP shall describe how the Contractor’s and Subcontractors’ inputs will be coordinated with the Associated Party that has system-level Materiel Safety responsibilities.

* + 1. System Safety Program Activities

The IMSP shall describe how applicable standards and other documents, referred to under clause 6.2.2, will be adapted to the Contractor’s system-safety program (eg, the tailored application of MIL-STD-882E tasks).

Where the Materiel Safety management system (ie, containing Materiel Safety baseline documentation, hazard logs, other documentation and tools) is managed by Defence or an Associated Party, the IMSP shall describe how the Contractor, and Subcontractors when applicable, will access that system.

The IMSP shall describe the analyses applicable to the Contractor’s ongoing system-safety program, including:

hazard risk analyses, including criteria for the judgement of significance and basis for the allocation of a hazard risk index;

Software safety assurance;

hazard mitigation and acceptance processes; and

internal and external review processes.

The IMSP shall describe how the ongoing system-safety program will be integrated with other Services, when required under the Contract including:

Defect and other engineering investigations;

the development and review of Deviations;

parts substitution evaluations;

Major Changes and Minor Changes;

support for safety-critical Software; and

reliability monitoring.

Where the Services includes the development of Major Changes and Minor Changes, including Software changes if applicable, the IMSP shall describe:

the integration of system-safety program activities within the engineering change process, including Configuration Control Boards, system-safety working groups, and review board activities;

the requirements and resources for performing hazard analyses, including:

hazard identification;

the inclusion of changes in system operational role, configuration and environment, where applicable;

the analysis of failure modes, including reasonable human errors and susceptibility to environmental factors and other external events;

the contribution of both hardware and Software, where applicable;

integration with human factors engineering and analysis activities;

consideration of independent, dependent and simultaneous hazard events;

the risk acceptance framework; and

the assignment of a hazard risk index; and

additionally, for Major Changes, the:

Note: Engineering changes that are judged as being significant to Materiel Safety (as identified by the preliminary hazard analysis) will be classed as a Major Change.

* 1. system-safety program planning requirements for individual Major Changes;
  2. hazard analysis process, including the requirements of clause 6.2.6.5 and all additional techniques and tools to be used; and

hazard mitigation, verification and evaluation processes.

The IMSP shall describe how the Contractor will update Materiel Safety baseline documentation, including the safety case report(s) and hazard log(s), applicable to the Products Being Supported.