DATA ITEM DESCRIPTION

1. DID NUMBER: DID-ENG-SOL-SCR-V5.0
2. TITLE: SAFETY CASE REPORT
3. DESCRIPTION AND INTENDED USE

The Safety Case Report (SCR) documents a comprehensive evaluation, at the time of the report, of the mishap and safety hazards and their associated risks prior to test or operation of the system, following system modification, or prior to the Acceptance of Mission Systems and applicable Support System Components. The SCR, including by reference to other system-safety related data items (which in totality form the ‘Safety Case’), identifies the hazards, associated risks, and measures to ensure that hazards have been eliminated so far as is reasonably practicable or, if it is not reasonably practicable to eliminate hazards, the measures to eliminate (or, otherwise, minimise) the associated risks so far as is reasonably practicable – in summary, all of the evidence needed to demonstrate that Safety Outcomes have been, or will be[[1]](#footnote-1), met. The SCR documents the consultation outcomes between the Commonwealth and Contractor and formal risk acceptance decisions made.

The Contractor uses the SCR to present an argument, supported by a body of evidence, to show that:

when used in relation to the Acceptance of Supplies, the Materiel System is safe for the purposes which are expressly stated, as Safety Outcomes have been met;

the applicable safety requirements, including relevant Australian legislation, design rules, standards, and codes of practice, have been satisfied; and

the safety requirements established by any applicable certification authorities have been satisfied.

The Commonwealth uses the SCR:

to determine that the system hazards to health and safety have been identified and that Safety Outcomes have been, or will be, met;

to determine that the associated certification requirements have been satisfied;

when applicable, as a basis for evaluating Materiel Safety prior to the Acceptance of Supplies;

to obtain necessary safety certifications from Defence regulatory and safety authorities; and

as the basis for assessing and managing health and safety risks throughout the system’s life-cycle.

1. INTER-RELATIONSHIPS

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

Project Management Plan (PMP);

Systems Engineering Management Plan (SEMP);

System Safety Program Plan (SSPP);

In-Service Materiel Safety Plan (IMSP);

Software Management Plan (SWMP);

Hazard Analysis Report (HAR); and

Hazard Log (HL).

1. ApPLICABLE DOCUMENTS

The following documents form a part of this DID to the extent specified herein:

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| --- | --- |
| 1. Nil. |  |

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 SCR 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. General

The SCR shall comprise a comprehensive and structured body of evidence that demonstrates, by reasoned argument, that the delivered Materiel System is suitable for Acceptance with respect to Materiel Safety.

The SCR shall include an executive summary.

Subject to clause 6.1.2, the SCR shall provide a description of the Materiel System to which the Safety Case relates, including:

the applicable configuration(s), roles, functions and environments, system boundaries, major and safety-critical components and areas of safety-related risk worthy of particular attention; and

where relevant, any interfaces and interactions with other systems and personnel that may present safety-related interface risks that cannot be managed by a single Contractor or Commonwealth entity.

* + 1. System Safety Program

The SCR shall provide a description of the system-safety program employed by the Contractor to provide assurances as to the integrity of the process used to develop and update the Safety Case, including the current assessment of Materiel Safety.

The description of the system-safety program shall summarise the analyses performed to achieve Safety Outcomes, including:

a summary of the safety engineering and safety management processes employed to meet the safety-related requirements of the Contract;

internal and external audits conducted during the development of the Supplies to provide assurances that the system-safety management system was implemented as defined;

details of relevant design and safety certificates or licences; and

the responsibilities and accountabilities of Key Persons involved in the safety engineering and safety management program.

The SCR shall summarise the requirements, criteria and methodology used to classify and rank hazards, including any assumptions on which the criteria or methodologies were based or derived including the definitions for the hazard risk indices and of acceptable risk. Where data for extant subsystems, components and interfaces were incorporated into the analysis, the SCR shall summarise how that existing data was validated and, if necessary, adapted for the configuration, role and environment applicable to the Materiel System.

* + 1. Materiel Safety Assessment

The SCR shall demonstrate, through assessment based on objective quality evidence, how the Materiel System achieves safety-related requirements specified under the Contract, the requirements of relevant Australian legislation, codes of practice, civil and Defence regulatory requirements, and applicable design and safety standards.

The SCR shall contain the objective quality evidence used to demonstrate Materiel Safety including:

a list of all safety-related risks with a residual (ie, post-treatment) risk level (as documented in the hazard risk index) of medium or above, or as otherwise defined in the Approved SSPP;

subject to clause 6.1.2, the Hazard Log;

subject to clause 6.1.2, results of the hazard analyses conducted;

subject to clause 6.1.2, the details of any calculations, analyses, tests or examinations necessary to demonstrate that Safety Outcomes have been, or will be, met including the actions undertaken to:

identify system hazards that could give rise to risks to health and safety, and the associated risks to health and safety;

evaluate the actions taken to eliminate the hazards and associated risks to health and safety so far as is reasonably practicable and, where elimination is not reasonably practicable, to minimise the associated risks to health and safety so far as is reasonably practicable; and

validate safety criteria, requirements and analyses;

subject to clause 6.1.2, recommendations applicable to hazards at, or caused by, the interface between the Supplies and other system(s), where applicable;

for the Mission System subsystems (eg, pressure vessels) and Support System Components (eg, hoists, cranes) included in the Supplies that are or that contain items of plant where registration of the design of that plant is required under WHS Legislation[[2]](#footnote-2), copies of the registration documents provided by the Commonwealth, State or Territory regulator;

evidence that all applicable certifications (other than Australian design registration details included in the SCR in accordance with clause 6.2.3.2f) and necessary safety-related compliance assurance activities, as required by applicable third party regulatory and safety authorities, have been met;

a list of all pertinent reference materials including reports, standards and regulations, specifications and requirements documents, design documentation, Safety Data Sheets, and operating, maintenance and other manuals; and

subject to clause 6.1.2, any additional supporting evidence reasonably required by the Commonwealth for the purposes of demonstrating Materiel Safety.

The SCR shall contain a summary statement, signed by the Contractor’s technical authority, declaring that the system’s Materiel Safety requirements have been met and the system’s readiness for test, to operate or to otherwise proceed to the next phase of its life cycle.

1. Reference to ‘will be’ acknowledges that some measures can only be established through Defence processes and training. [↑](#footnote-ref-1)
2. Refer to Part 5.3 of the *WHS Regulations 2011* (Cth). [↑](#footnote-ref-2)