DATA ITEM DESCRIPTION

1. DID NUMBER: DID-ENG-SOL-MSA-V4.0
2. TITLE: Materiel Safety Assessment
3. DESCRIPTION AND INTENDED USE

The Materiel Safety Assessment (MSA) provides evidence of safety hazards and their associated risks, and how they have been eliminated or treated, prior to test or operation of the system, following system modification, or prior to Acceptance of the applicable Supplies (ie, physical items including Mission Systems and applicable Support System Components, as applicable to the Contract). The MSA, including by reference to other safety related data items, 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 required to demonstrate that the Materiel Safety requirements of the Contract have been, or will be[[1]](#footnote-1), met.

The Contractor uses the MSA to present an argument that:

when used in relation to the Acceptance of Supplies, the applicable Supplies are safe for the purpose or purposes contemplated by the Contract;

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 MSA:

to determine that the hazards and risks 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 the applicable Supplies prior to the Acceptance of those Supplies;

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

as a basis for assessing and managing the health and safety risks of the applicable Supplies.

1. INTER-RELATIONSHIPS

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

Systems Engineering Management Plan (SEMP); and

Project Management Plan (PMP).

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 data item 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 MSA shall include a summary of the information presented as evidence of Materiel Safety for each item of plant (eg, new or modified equipment), structure and substances (eg, Consumables) delivered under the Contract (the ‘applicable Supplies’).

The MSA shall provide a description of the system safety program, including the processes employed by the Contractor to collect and confirm the validity of extant safety related data, to develop the assessment of Materiel Safety for the applicable Supplies.

* + 1. Materiel Safety Assessment

The MSA shall contain adequate information to demonstrate the Materiel Safety of each of the applicable Supplies, including:

the purpose for which the item was designed and manufactured, including limits on equipment operation and allowable environmental conditions,

the results of any calculations, analysis, tests or examinations necessary to demonstrate the Materiel Safety of the applicable Supplies;

any conditions necessary to ensure that the Materiel Safety of the applicable Supplies is maintained;

any additional supporting evidence reasonably required by the Commonwealth for the purposes of demonstrating Materiel Safety; and

evidence that the requirements of relevant Australian legislation and applicable design and safety standards have been met.

The MSA shall include, 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, copies of the registration documents provided by the Commonwealth, State or Territory regulator.

The MSA shall include evidence that all applicable certifications (other than Australian design registration details included in accordance with clause 6.2.2.2) and necessary safety-related compliance assurance activities, as required by the applicable third party regulatory and safety authorities, have been met.

* + 1. Safety Hazards and Risk Log

The MSA shall contain, at Annex A, a log of hazards and associated risks to health and safety, including:

hazard identification (eg, radiation leakage from waveguide);

a description of the hazard and its associated risks to health and safety;

identification of the relevant item, system element or component of the applicable Supplies;

if in relation to a Problematic Substance, the log details shall include:

identification of the Problematic Substance, a cross-reference to the Safety Data Sheet (SDS), which shall be prepared in accordance with DID-PM-HSE-SDS and included as supporting information annexed to the MSA;

the location(s) of the Problematic Substance within the applicable Supplies and/or for use in Maintenance or other support processes; and

the quantity of the Problematic Substance in each location identified under clause 6.2.3.1d(ii);

other applicable factors (eg, equipment configuration, operating environment, system events or modes) when the hazard or risk are present;

identification of the risks associated with each hazard;

treatments that have been implemented to eliminate safety risks and to minimise residual risks where elimination was not reasonably practicable; and

references to information regarding safe practices and other measures relevant to minimising the remaining risks (eg, operator and maintenance manuals, training materials and other references).

* 1. Annexes

Annex A: Safety Hazards and Risk Log

Other Annexes as necessary to provide all Materiel Safety information required by this DID that has not already been provided under another data item in accordance with the Contract.

1. Reference to ‘will be’ acknowledges that some measures can only be established through Defence processes and training. [↑](#footnote-ref-1)