DATA ITEM DESCRIPTION

1. DID NUMBER: -
2. TITLE: EMANATION SECURITY (EMSEC) CONTROL PLAN
3. DESCRIPTION AND INTENDED USE

The Emanation Security (EMSEC) Control Plan (ESCP) sets out the Contractor’s plan to reduce the assessed risks arising from the potential exploitation by non-Defence parties of compromising emanations produced by the Mission System. The ESCP addresses the assessed risks through the management of the spatial environment and installation methods used for systems processing classified information above PROTECTED.

Notes:

* The EMSEC Threat Level (ETL) is stated within the Project EMSEC Threat Assessment (ETA), which is produced by Australian Signals Directorate (ASD) in accordance with ACSI 71D. A Project TEMPEST Requirements Statement (TRS) may also be produced by ASD, which provides guidance on the EMSEC installation requirements for the Mission System that will enable it to meet EMSEC testing required by ASD, given the assessed risk levels. The level and depth of the design-related and installation-related information provided in the ESCP are shaped by the guidance contained within the Project ETA and, if applicable, the Project TRS. Due to the classified nature of TEMPEST testing, the Commonwealth normally conducts this testing.
* The Contractor prepares the ESCP under guidance from the Commonwealth Representative and the Commonwealth submits the document to the Certification authority in support of the EMSEC Certification and Accreditation of the Mission System.

The Contractor uses the ESCP as one of the EMSEC artefacts:

to detail the design and installation methods to be used to reduce or eliminate compromising emanations produced by the Mission System;

to advise the Commonwealth and the associated Certification and Accreditation authorities, as prescribed by ASD, of the design and installation methods implemented to address the risks associated with the potential exploitation of compromising emanations; and

to provide assurance to the Commonwealth that the Contractor’s EMSEC activities will enable the security requirements for the Mission System to be achieved.

The Commonwealth uses the ESCP:

to gain assurance that EMSEC considerations are taken into account during the design and installation activities for the Mission System;

to understand and evaluate the Contractor’s approach to meeting the EMSEC requirements of the Contract as part of the system security program;

to identify and understand the Commonwealth’s involvement in the Contractor’s EMSEC program, including the monitoring of the Contractor’s program;

as an input to its own planning for the project, including in relation to attaining Certification and/or Accreditation for the Mission System; and

as one of the suite of EMSEC artefacts provided to the relevant Defence authorities as part of obtaining Certification and/or Accreditation for the Mission System.

1. INTER-RELATIONSHIPS

The ESCP is subordinate to the following data items, where these data items are required under the Contract:

Systems Engineering Management Plan (SEMP);

Contractor Engineering Management Plan (CEMP);

Materiel System Security Management Plan (MSSMP); and

In-Service Security Management Plan (ISSMP).

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

the security-related data items required under the Contract;

the safety-related design artefacts (eg, Safety Case Report (SCR));

Mission System Technical Documentation Tree (MSTDT); and

Verification and Validation Plan (V&VP).

1. APPLICABLE DOCUMENTS

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

Note to drafters: Amend the list of Applicable Documents to suit the requirements of the Contract. Do not include the documents included within the ‘Governing Security Documents’.

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| --- | --- |
| Governing Security Documents | (see the Glossary for the definition of this term) |
| ACSI 71D | Australian Communications Security Instruction – Emanation Security Manual |
| ACSI 61D | Australian Communications Security Instruction – Emanation Security Installation Manual |
| DEF(AUST) 5000, Volume 6, Part 2, Section 12, Issue 2 | Emanation Security |
| Project ETA | Project EMSEC Threat Assessment |
| Project TRS | Project TEMPEST Requirements Statement (if a Project TRS is required for the project) |

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’.

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.

The ESCP shall be classified in accordance with the requirements of the Security Classification and Categorisation Guide (SCCG) at Attachment J to the COC, but shall not be classified lower than OFFICIAL: SENSITIVE.

* 1. Specific Content
     1. Introduction

The ESCP shall provide a brief overview of the purpose and background of the project and the Mission System.

The ESCP shall:

set out the aim of the ESCP;

set out the scope of the ESCP, including the applicable information from Sections 1 and 2 of ACSI 71D and Sections 1 and 2 of ACSI 61D;

provide a description of the Mission System in the form of a block diagram with signal flow paths;

provide a brief description of EMSEC and EMSEC control, including how EMSEC control management is to be conducted for the project; and

Note to drafters: Amend the following clause if PURPLE is not applicable to the Contract.

describe how conventions such as BLACK, RED and PURPLE (Classification Domains) will be used throughout the document.

* + 1. Organisation and Management

To the extent not already addressed in the Approved governing plan (eg, SEMP, MSSMP or ISSMP), the ESCP shall describe the roles and responsibilities of the main personnel involved in the EMSEC program, including:

Contractor EMSEC Control Officer (appointed by the Contractor); and

Delivery Group EMSEC Control Officer (appointed by the Commonwealth).

* + 1. General Requirements

The ESCP shall provide a summary of the EMSEC requirements to be met by the Mission System, including:

the requirements contained in the Specification(s) at Annex A to the SOW;

the requirements derived from the applicable documents identified at clause 5.1; and

any other requirement sources used by the Contractor.

The ESCP shall include a table that provides the allocation of the required controls, as derived from the applicable documents identified at clause 5.1, to the entity responsible for the implementation of that control (eg, Contractor or Commonwealth).

The ESCP shall identify and describe the EMSEC-related Technical Data that will be produced and/or delivered as part of the EMSEC program.

* + 1. Design Concepts

The ESCP shall describe the design concepts that have been followed for the Mission System to ensure that the system complies with EMSEC requirements identified pursuant to clause 6.2.3.1 of this DID. Design concepts that should be considered include:

those set out in the Project TRS (if applicable);

those set out in Sections 3‑5 of ACSI 61D; and

the following specific issues:

physical design of the controlled space;

pipe work;

Heating, Ventilation and Air Conditioning (HVAC);

controlled space personnel access points;

controlled space penetration points;

measures to minimise Electromagnetic Interference (EMI) and maximise Electromagnetic Compatibility (EMC);

equipment and material selection, including cable design characteristics;

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BLACK, RED and PURPLE domains;

physical and electrical segregation, separation and isolation of equipment;

grounding and bonding;

Radiofrequency (RF) earth management;

EMSEC controls for emission and conduction; and

ICT equipment in TOP SECRET areas meets industry and government standards relating to EMI/EMC.

* + 1. Installation Concepts

The ESCP shall describe the installation procedures and policies to be followed during the build phase of the Mission System to ensure that the system complies with EMSEC requirements identified pursuant to clause 6.2.3.1 of this DID. Installation concepts that should be considered in this section include:

those set out in the Project TRS (if applicable);

those set out in Sections 3‑5 of ACSI 61D; and

the following specific issues:

HVAC distribution;

cable distribution, isolation and routing;

cable design characteristics and modifications;

EMC, EMI and Radiation Hazards (RADHAZ);

physical and electrical segregation, separation and isolation of equipment;

screening;

penetration;

filtering;

isolators;

RF earthing via an RF earth tree diagram; and

logical system cable flows.

Note: The physical implementation of the EMSEC Control System is detailed in a series of Annexes as described below and are to be completed as the design progresses. The Contractor EMSEC Control Officer is to add any additional Annexes they deem necessary to facilitate the Verification process.

* + 1. Annex A – Screened Compartment Implementation or Alteration

This Annex shall detail any new screened compartments that are required to be constructed and any existing screened compartment that requires alteration for the implementation of the Mission System.

This section shall describe how the attenuation characteristics of secure areas will not be degraded by the installation of systems and equipment into the Mission System (eg, through use of EMI/EMC penetrations/filters etc).

This Annex shall detail at least the following:

construction requirements;

personnel access point;

HVAC access points;

power access points; and

cable input / output access points.

* + 1. Annex B – EMSEC Installation Directives

This Annex shall describe boundaries of all secure areas affected by the installation of systems and equipment into the Mission System. This will detail the boundaries of the following areas, including diagrams where applicable:

physical controlled space boundary; and

physical EMSEC boundary.

* + 1. Annex C – Component Data Pack

This Annex shall contain the data files for the systems and equipment installed into the Mission System, which are used to ensure that the Mission System complies with the EMSEC requirements.

Components data sheets contained in this annex should include:

power filter data sheets;

telephone filter data sheets;

HVAC waveguide ventilating panels; and

EMC penetration glands.

* + 1. Annex D – EMSEC Cable Register

This Annex shall detail all cables, listing the cable number, cable type and classification that enter or exit any controlled space within the Mission System.