DATA ITEM DESCRIPTION

1. DID NUMBER: DID-V&V-MGT-V&VP-2-V5.2
2. TITLE: VERIFICATION AND VALIDATION PLAN
3. DESCRIPTION and intended use

The Verification and Validation Plan (V&VP) is the Contractor’s plan for Verification of Supplies to be offered for Acceptance under the Contract.

The Contractor uses the V&VP to document and to gain Approval for the Verification arrangements for the Supplies.

The Commonwealth uses the V&VP to:

gain assurance that the Contractor’s proposed Verification activities will be adequate to assure the quality of Supplies offered for Acceptance under the Contract and to Verify that the requirements have been met;

monitor the progress of the Contractor’s Verification and Validation (V&V) program; and

identify the Commonwealth’s involvement in the program.

1. INTER-RELATIONSHIPS

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

Systems Engineering Management Plan (SEMP); and

Integrated Support Plan (ISP).

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

Verification Cross-Reference Matrix (VCRM);

Acceptance Test Plans and Procedures (ATP&Ps);

Acceptance Test Reports (ATRs);

Previous V&V Results Package (PV&VRP); and

Contract Master Schedule (CMS).

1. APPLICABLE DOCUMENTS

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

|  |  |
| --- | --- |
| 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 plan that contains aspects of the required information, the V&VP shall summarise these aspects and refer to the other plan.

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 V&VP shall describe the objectives, scope, constraints, and assumptions associated with the Contractor’s Verification activities. Any risks associated with these activities shall be documented in the Risk Register in accordance with the Approved PMP, as required under the Contract; however, the V&VP shall describe the risk-management strategies associated with any risks where the mitigation strategy underpins the overall V&V program.

* + 1. Organisation and Management

The V&VP shall include the Contractor's organisational arrangements (including Subcontractors) for its Verification program, and the inter-relationships between the V&V organisation and the other parts of the Contractor's organisation for the project.

The V&VP shall identify the individual within the Contractor’s organisation who will have managerial responsibility and accountability for meeting the Verification requirements of the Contract.

* + 1. Verification Activities

The V&VP shall describe the Verification activities to be conducted to demonstrate that the Supplies offered for Acceptance comply with the requirements of the Contract.

The V&VP should draw comprehensively on the VCRM, and shall describe all test activities to be included in the Verification of the Supplies.

The V&VP should outline the Contractor's V&V program schedule, describing how the schedule supports the achievement of the CMS.

The V&VP shall detail requirements and procedures for the Commonwealth provision of resources for, and involvement in, or witnessing of, Verification activities.

Where the Contractor proposes to claim previous Verification results as precluding the need for specific Verification activities within the V&V program, the V&VP shall summarise:

the scope and context of the previous Verification activities;

the reasons why the previous results preclude the need for specific Verification activities including how the previous results are valid for the configuration of the Supplies, and the intended operational role and environment described in Description of Requirement; and

how the previous Verification results, delivered in a Contractor’s PV&VRP, will be integrated into the planned Verification activities and the VCRM.

* + 1. Flow Diagram

The V&VP shall include an overall flow diagram of the Verification program for both the Mission System and significant Support System Components. This flow shall be sequentially arranged to include:

all significant Verification milestones and efforts in the development phase associated with each class of Verification;

hardware and software integration schedules;

requirements for concurrency of Verification activities;

the contractor or group responsible for each Verification event; and

any additional information that clarifies the description of the test program.

The flow diagram shall reflect predicted dates for significant milestones.

* + 1. Verification Objectives

The V&VP shall specify the broad objective for each Verification phase for both the Mission System and Support System Components. Objectives shall be specified in terms of Verifying part or all of system or lower level specifications (eg, subsystem specifications). It is important that the V&VP support a unified set of objectives for the entire V&V program, so that redundant activities are eliminated and the program can evolve smoothly through each succeeding phase.

* + 1. Test Readiness Reviews

The V&VP shall describe the approach for the conduct of Test Readiness Reviews (TRRs) as Mandated Systems Reviews (MSRs), V&V involvement in other MSRs, and any Internal System Reviews necessary for the effective conduct of the V&V program.

The V&VP shall describe the objectives for each V&V-related System Review and the relationship between each System Review and other V&V program activities

Note: The following clause only relates to the V&V-related System Reviews. The main governing plans for each of the Level 2 subject area clauses in the SOW address the other System Reviews (eg, the PMP addresses project management System Reviews, the SEMP addresses engineering-related System Reviews, and the CMP or SEMP addresses CM-related System Reviews).

The V&VP shall detail the following information for each of the V&V-related System Reviews (cross-referring to the SEMP where appropriate), incorporating the associated SOW requirements (including entry criteria, exit criteria and checklist items) for these System Reviews and supplemented where required by the Contractor’s internal processes:

the organisations and individuals involved in the review and their specific review responsibilities;

the proposed review venue;

the pre-requisites for the conduct of the review (ie, entry criteria);

the checklist items to be addressed during the System Review, including the documentation to be reviewed;

the essential review completion criteria (ie, exit criteria); and

the applicable Milestone criteria specified in Attachment C, Delivery Schedule.

* + 1. Failure and Corrective Action Management

The V&VP shall describe the Problem Resolution System used for the collection of Failure data for both the Mission System and the Support System Components (including that of Subcontractors) and shall identify when it will be established.

The V&VP shall identify the process used to analyse Failures and track the corrective action taken as a result of a Failure, and the interaction with the engineering development groups, logistic organisation, Subcontractors and the Commonwealth.

The V&VP shall identify how regression testing for both the Mission System and the Support System Components will be managed following test failure or design change throughout the V&V program.