CHANGE REQUEST COVER SHEET

Change Request Number: 11-37   **Date Received:** 7/27/2011

Title: Integration of Critical Performance Requirements into AMS Documentation

Name: David Woodson

Phone: 202-267-7601

Policy OR Guidance: Policy

Section/Text Location Affected: Appendix B: In order to ensure consistency of terminology, changes were made to the description of the Acquisition Program Baseline to be consistent with CPRs.

Summary of Change: The CPRs change request corrects inconsistencies in the definition and use of what was previously known as key performance parameters (KPPs) in AMS policy and guidance.

Reason for Change: CPRs provides decision authorities with insight into a programs progress towards its end state. CPR status information identifies program risks and issues, providing opportunities to make informed adjustments.

Development, Review, and/or Concurrence: AEB Verification and Validation Working Group

Target Audience: AMS workforce

Potential Links within FAST for the Change: None

Briefing Planned: No

ASAG Responsibilities: None

Potential Links within FAST for the Change: None

Links for New/Modified Forms (or) Documents (LINK 1)

Links for New/Modified Forms (or) Documents (LINK 2)

Links for New/Modified Forms (or) Documents (LINK 3)

SECTIONS EDITED:

Acquisition Program Baseline

Old Content: Acquisition Management Policy:
Acquisition Program Baseline

download acquisition program baseline template

PURPOSE
The acquisition program baseline defines the cost, schedule, and performance baselines for the investment program. It is the mutual agreement between the investment decision authority, the providing service organization, and the operating service organization concerning the performance and capability the program will provide and the authorized cost and schedule.

DESCRIPTION
The acquisition program baseline is established at the final investment decision coincident with approval of an investment program for implementation. The cost and schedule baselines are developed during final investment analysis by the service organization (working within the investment analysis team) that will implement and manage the program throughout its lifecycle. The performance baseline contains the key performance parameters and their associated values that are essential to meet the mission need. The key performance parameters are obtained from the program requirements document for the IDA-selected solution.

Certain critical parameters within each baseline in the APB are designated for IDA control. These parameters define the empowerment boundaries of the service team during solution implementation. They relate to corporate FAA's commitment to satisfying the mission need, achieving needed operational capability, and meeting the schedule requirements of interdependent programs. IDA controls are identified during final investment analysis by the investment analysis team and approved by the IDA.

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APPROVAL
The chair of the investment decision authority approves the acquisition program baseline with the concurrence of other IDA members. Designated ACAT reviewers also sign the document. NOTE: No funding may be committed or obligated that would exceed the cost baseline in the APB.

DISTRIBUTION
Send an electronic copy of the acquisition program baseline and updates to the IDA secretariat before a decision meeting per instructions in the IDA secretariat quick-start guide. The IDA secretariat maintains a database of all acquisition program baselines.

CONTENT
The acquisition program baseline consists of a cost baseline, schedule baseline, and performance baseline. Content is defined in the APB template.

New Content: Acquisition Management Policy:
Acquisition Program Baseline

download acquisition program baseline template

PURPOSE
The acquisition program baseline defines the cost, schedule, and performance baselines for the investment program. It is the mutual agreement between the investment decision authority, the providing service organization, and the operating service organization concerning the performance and capability the program will provide and the authorized cost and schedule.

DESCRIPTION

The acquisition program baseline is established at the final investment decision coincident with approval of an investment program for implementation. The cost and schedule baselines are developed during final investment analysis by the service organization (working within the investment analysis team) that will implement and manage the program throughout its lifecycle. The performance baseline contains critical performance requirements and their associated values that are essential to meet the mission need. Critical performance requirements are obtained from the program requirements document for the IDA-selected solution.

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Red Line Content: Acquisition Management Policy:
Acquisition Program Baseline

download acquisition program baseline template

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Section 2.5 : Solution Implementation
Old Content: Acquisition Management Policy:
Section 2.5 : Solution Implementation

Solution implementation begins at the final investment decision when the investment decision authority approves and funds an investment program or segment, establishes the acquisition program baseline for variance tracking, and authorizes the service organization to proceed with implementation. Solution implementation ends when a new service or capability is commissioned into operational use at all sites.

Detailed program planning, including the solicitation and evaluation of offers for prime contract(s), occurs during final investment analysis and before the final investment decision. This ensures accurate contract costs, risks, and schedules are reflected in the acquisition program baseline and program planning documents. These plans and baselines are revalidated, and updated if necessary, after contract award to ensure they can realistically serve as the management construct for program implementation. They are kept current throughout solution implementation.

The overarching goal of solution implementation is to satisfy user requirements and achieve the benefit targets in the business case analysis report. To achieve this, the service organization must work with users and stakeholders throughout solution implementation to resolve issues as they arise. Actions outside the direct control of the service organization (e.g., regulatory changes) are recorded in the implementation strategy and planning document and tracked at program reviews throughout solution implementation.

The activities undertaken during solution implementation vary widely and are tailored for the solution or capability being implemented. FAST contains tailored process flowcharts for representative types of investment program (systems and software, facilities, services). These flowcharts identify actions and activities the service organization may need to execute to achieve projected capability, value, and benefits. Instructions, templates, best practices, good examples, and lessons-learned are attached to many activities in the flowcharts to assist lifecycle

management specialists as they plan and execute activities that make sense for their investment program.

Although service organizations are empowered to implement investment programs and manage them over their lifecycle, they must adhere to built-in checks and balances. The acquisition program baseline establishes the performance, cost, schedule boundaries within which the service organization is authorized to operate. The service organization must report all negatives variance from cost, schedule, and performance baseline measures and undertake corrective action in accordance with AMS Section 1.2.3.

The service organization monitors cost, schedule, and performance status against targets in the acquisition program baseline on a continuing basis, and takes corrective action when variances from planning objectives arise. The service organization also reports program status at service-level reviews. The focus of these reviews is to identify high-risk issues requiring resolution and to ensure all actions necessary to achieve projected value and benefits are being executed satisfactorily, particularly those outside the control of the service organization. The service organization applies the principles of earned value management to development, modernization, and enhancement investment programs, and when applicable, uses audits to ensure contract costs are proper and allowable.

The service organization captures expenditures consistent with the program baseline work breakdown structure fashioned during final investment analysis.

Solution implementation is organized into the six sets of activity shown in Figure 2.5.1-1.These activities are tailored to the special requirements of each investment program.

Figure 2.5-1 Primary Activities of Solution Implementation

Note: The activity flow diagram specifies what must be done during solution implementation. The scope and order of work may be adjusted for each investment initiative.

New Content: Acquisition Management Policy:
Section 2.5 : Solution Implementation

Solution implementation begins at the final investment decision when the investment decision authority approves and funds an investment program or segment, establishes the acquisition program baseline for variance tracking, and authorizes the service organization to proceed with implementation. Solution implementation ends when a new service or capability is commissioned into operational use at all sites.

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The overarching goal of solution implementation is to satisfy requirements documented in the final requirements document and achieve the benefit targets in the business case analysis report. To achieve this, the service organization must work with users and stakeholders throughout solution implementation to resolve issues as they arise. Actions outside the direct control of the service organization (e.g., regulatory changes) are recorded in the implementation strategy and planning document and tracked at program reviews throughout solution implementation.

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The service organization monitors cost, schedule, and performance status against targets in the acquisition program baseline on a continuing basis, and takes corrective action when variances from planning objectives arise. The service organization also reports program status at service-level reviews. The focus of these reviews is to identify high-risk issues requiring resolution and to ensure all actions necessary to achieve projected value and benefits are being executed satisfactorily, particularly those outside the control of the service organization. The service organization applies the principles of earned value management to development, modernization, and enhancement investment programs, and when applicable, uses audits to ensure contract costs are proper and allowable.

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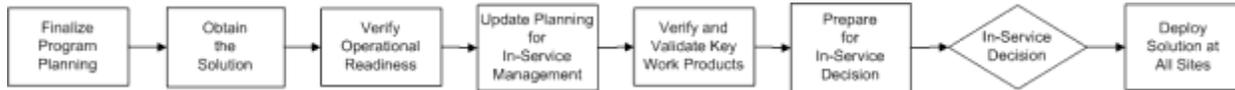
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Red Line Content: Acquisition Management Policy:
Section 2.5 : Solution Implementation

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Note: The activity flow diagram specifies what must be done during solution implementation. The scope and order of work may be adjusted for each investment initiative.

Section 2.5.1 : What Must Be Done

Old Content: Acquisition Management Policy:
Section 2.5.1 : What Must Be Done

- **Finalize program planning.** The service organization reviews and updates program planning completed during final investment analysis (i.e., implementation strategy and planning document). Key stakeholders participate in this activity to ensure planning is complete and realistic. For example, if new systems are to be installed or existing facilities modified, service organization planners work with service-area offices so people and resources will be available when needed.
- **Obtain the solution**. The service organization oversees and coordinates execution of tasks and activities necessary to achieve the benefits projected for the investment program within approved cost and schedule baselines. This includes such activities as contract award, contract administration, program management, resource management, risk management, systems engineering, logistics support, test and evaluation, and site acquisition and adaptation. It may involve developing operational procedures and
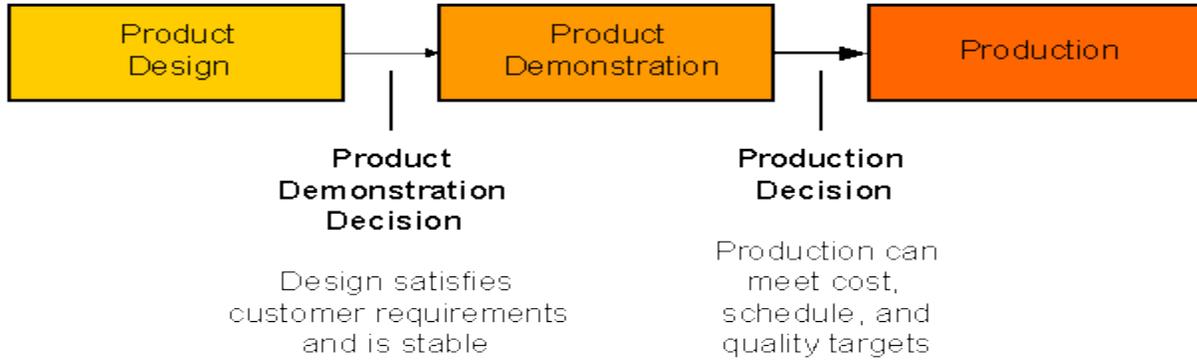
standards; obtaining physical, personnel, and information security; modifying the physical infrastructure; and coordinating collateral action by the aviation industry.

- **Verify Operational Readiness.** The service organization manages all activities necessary to install the solution at a designated test site(s) and test it thoroughly to verify operational readiness. Operational readiness encompasses operational effectiveness and operational suitability. Operational effectiveness measures how well the solution satisfies mission need and operational requirements. Operational suitability measures how well a product can be integrated and employed for field use, considering such factors as compatibility, reliability, human performance factors, maintenance and logistics support, safety, and training. For designated programs, operational readiness is also assessed by independent operational assessment. The solution may be installed, as necessary, at the FAA Academy, FAA Logistics Center, and William J. Hughes Technical Center before the in-service decision. In rare cases and with proper justification, the service organization may request authority to install at other specific sites. This authorization does not affect the regular in-service review process culminating in a final in-service decision, which must be adhered to before a product can be placed into operational service through the declaration of operational readiness date (ORD) and commissioning.
- **Update planning for in-service management**. The service organization plans how it will sustain and manage deployed assets throughout their full lifecycle. This includes in-service support, post implementation reviews and other evaluations of operational assets to measure performance, collection of performance data in support of service-level reviews, product sustainment strategy and actions, service-life extension, and eventual removal from service including site restoration.
- **Verify and validate key work products and products**. The service organization incrementally verifies and validates key work products and products of solution implementation, including the contract/statement of work, design documents, specifications, and actual product/product components. Verification and validation activity supports contract award, product demonstration decision, production decision, product acceptance, and the in-service decision.
- **Prepare for in-service decision.** The service organization completes all activities necessary for the in-service decision. This includes resolution of all support issues identified by the operating service organization and integrated logistics management team; completion of management actions arising from the in-service review checklist and IOA report (designated programs only); resolution of stakeholder issues; development of the in-service decision briefing and action plan; and concurrence of key stakeholders.
- **Deploy the solution at all sites.** The service organization manages all activities necessary to deploy the solution at each site. This includes transportation and delivery of equipment, installation and checkout, contractor acceptance and inspection, integration, field familiarization, declaration of initial operational capability, joint acceptance and inspection, dual operations, declaration of operational readiness, and removal and disposal of obsolete equipment. Post implementation reviews are conducted at deployment sites to ensure user needs are satisfied, identify systemic problems that must be corrected, and determine whether cost, schedule, and benefits objectives are being achieved. The transition from solution implementation to in-service management extends

over time, occurring at each site upon declaration of operational readiness or commissioning.

Investment programs that develop, modernize, or enhance systems or software follow the knowledge-based product development process shown in Figure 2.5.1-1. Table 2.5.1-1 contains the timing, criteria, and authority for each decision point.

Figure 2.5.1-1. FAA Knowledge-Based Product Development Process

Table 2.1.5-1 Product Development Decision Points, Timing, Criteria, and Authority

Decision Point	Timing	Decision Authority	Decision Criteria
Product Demonstration Decision	After critical design review	Vice President or Director of the implementing service organization	• Key product characteristics are defined • Stakeholders agree that product design and functionality satisfy customer requirements • System design reviews are complete • Engineering drawings are complete • Detailed software/firmware design is complete, including critical software processes and threads • RMA goals are defined and planning is complete • Failure modes and effects analysis is complete • Critical manufacturing processes are identified
Production Decision	After completion of operational testing	Vice President or Director of the implementing service organization *	• First-article satisfies customer requirements in an operational environment • Data demonstrate that critical manufacturing processes and components will achieve RMA goals • First-article achieves contract RMA requirements

			• Stakeholders agree design is producible

* Unless otherwise designated by the JRC at the final investment decision.

New Content: <u>Acquisition Management Policy</u>:
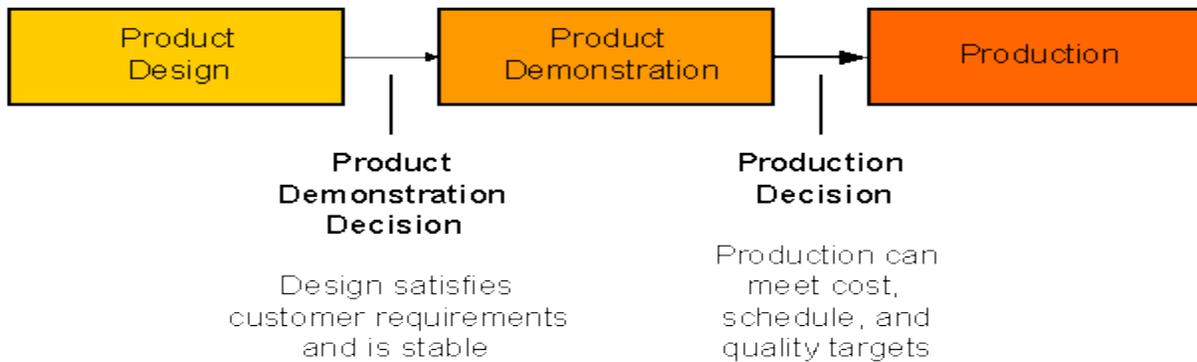**Section 2.5.1 : What Must Be Done**

- **Finalize program planning.** The service organization reviews and updates program planning completed during final investment analysis (i.e., implementation strategy and planning document). Key stakeholders participate in this activity to ensure planning is complete and realistic. For example, if new systems are to be installed or existing facilities modified, service organization planners work with service-area offices so people and resources will be available when needed.
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- **Verify and validate key work products and products**. The service organization incrementally verifies and validates key work products and products of solution

implementation, including the contract/statement of work, design documents, specifications, and actual product/product components. Verification and validation activity supports contract award, product demonstration decision, production decision, product acceptance, and the in-service decision.

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- **Deploy the solution at all sites.** The service organization manages all activities necessary to deploy the solution at each site. This includes transportation and delivery of equipment, installation and checkout, contractor acceptance and inspection, integration, field familiarization, declaration of initial operational capability, joint acceptance and inspection, dual operations, declaration of operational readiness, and removal and disposal of obsolete equipment. Post implementation reviews are conducted at deployment sites to ensure user needs are satisfied, identify systemic problems that must be corrected, and determine whether cost, schedule, and benefits objectives are being achieved. The transition from solution implementation to in-service management extends over time, occurring at each site upon declaration of operational readiness or commissioning.

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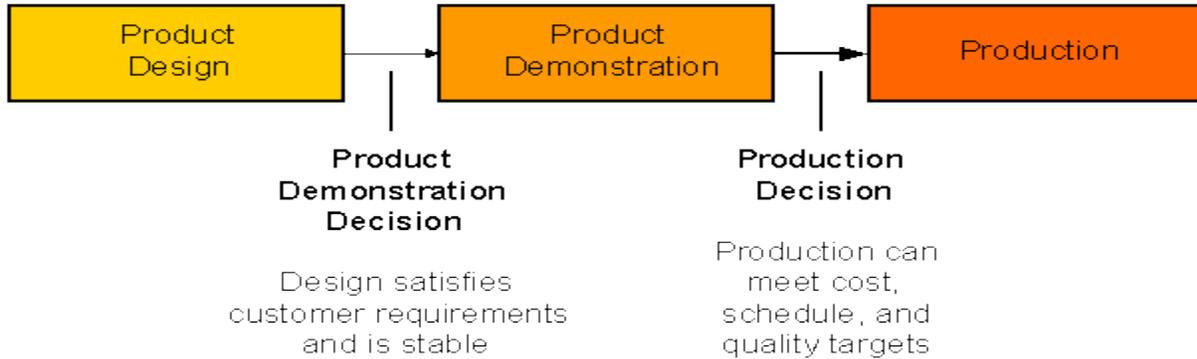**Section 2.5.1 : What Must Be Done**

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Section 2.5.2 : Outputs and Products

Old Content: <u>Acquisition Management Policy</u>:
Section 2.5.2 : Outputs and Products

The primary outcome of solution implementation is a fully deployed and supported operational capability that satisfies requirements, is accepted by users, is compatible with other products and services in the field, and realizes the benefits in the final business case analysis report. The following are typical products of solution implementation that support the fielding of a satisfactory operational capability:

- Annual updates of the OMB Exhibit 300 for designated programs;
- Continuous evaluation of progress against targets in the acquisition program baseline;
- Contracts that achieve investment objectives (i.e., cost, schedule, performance, and benefits);
- Successful operational test and evaluation;
- Successful IOA and IOA report for designated programs;
- In-service decision, including the in-service decision (ISD) briefing and action plan;
- Declaration of operational readiness and commissioning at each site;
- Program reviews and reports (e.g., baseline management, variance tracking; financial, schedule, performance; earned value, logistics measures, and risk management); and
- Service-level review reports.

New Content: <u>Acquisition Management Policy</u>:
Section 2.5.2 : Outputs and Products

The primary outcome of solution implementation is a fully deployed and supported operational capability that satisfies requirements (including program requirements and designated specifications), is accepted by users, is compatible with other products and services in the field, and realizes the benefits in the final business case analysis report by fully addressing requirements in the final program requirements document. The following are typical products of solution implementation that support the fielding of a satisfactory operational capability:

- Annual updates of the OMB Exhibit 300 for designated programs;
- Continuous evaluation of progress against targets in the acquisition program baseline (including status of critical performance requirements);
- Contracts that achieve investment objectives (i.e., cost, schedule, performance, and benefits);
- Successful operational test and evaluation including a final report on the status of critical operational issues and requirements in the final program requirements document, and passing status of critical performance requirements;
- Successful IOA and IOA report for designated programs;
- In-service decision, including the in-service decision (ISD) briefing and action plan;
- Declaration of operational readiness and commissioning at each site;
- Program reviews and reports (e.g., baseline management, variance tracking; financial, schedule, performance; earned value, logistics measures, and risk management); and
- Service-level review reports.

Red Line Content: Acquisition Management Policy:
Section 2.5.2 : Outputs and Products

The primary outcome of solution implementation is a fully deployed and supported operational capability that satisfies requirements *(including program requirements and designated specifications)*, is accepted by users, is compatible with other products and services in the field, and realizes the benefits in the final business case analysis report *by fully addressing requirements in the final program requirements document*. The following are typical products of solution implementation that support the fielding of a satisfactory operational capability:

- Annual updates of the OMB Exhibit 300 for designated programs;
- Continuous evaluation of progress against targets in the acquisition program baseline *(including status of critical performance requirements)*;
- Contracts that achieve investment objectives (i.e., cost, schedule, performance, and benefits);
- Successful operational test and evaluation *including a final report on the status of critical operational issues and requirements in the final program requirements document, and passing status of critical performance requirements*;
- Successful IOA and IOA report for designated programs;
- In-service decision, including the in-service decision (ISD) briefing and action plan;
- Declaration of operational readiness and commissioning at each site;
- Program reviews and reports (e.g., baseline management, variance tracking; financial, schedule, performance; earned value, logistics measures, and risk management); and
- Service-level review reports.

Section 2.5.4 : Who Approves?
Old Content: Acquisition Management Policy:
Section 2.5.4 : Who Approves?

The investment decision authority approves changes to the acquisition program baseline. The Chief Information Officer, Chief Financial Officer, and Acquisition Executive approve OMB Exhibit 300s for designated information technology capital investments before submission to OMB. The Acquisition Executive and Chief Financial Officer approve OMB 300 Exhibits for designated non-information technology capital investments.

New Content: Acquisition Management Policy:
Section 2.5.4 : Who Approves?

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Section 2.6 : In-Service Decision

Old Content: Acquisition Management Policy:
Section 2.6 : In-Service Decision

The in-service decision (ISD) authorizes deployment of a solution into the operational environment. It occurs after demonstration of initial operational capability at the key test site(s) and before initial operational capability at any non-key site or waterfall facility. The decision is made following completion of joint acceptance and inspection by the operating service organization and the certification of compliance with testing, information security, and safety requirements. It establishes the foundation for operational readiness to be declared at subsequent sites. The ISD is based on thorough testing and evaluation to verify performance requirements and operational readiness (safety, effectiveness, and usability). The in-service review (ISR) checklist is used by the service organization to identify and resolve readiness issues before the ISD and to obtain concurrence from stakeholder organizations.

The Investment Decision Authority is the ISD authority. At the final investment decision, the Investment Decision Authority may delegate ISD authority to appropriate FAA officials. For any solutions or products that affect multiple organizations, a joint ISD authority may be designated. This decision is documented in the final investment record of decision.

Depending on the implementation strategy of the solution (e.g., phased implementation, segments, multiple releases, several smaller programs executed separately as a part of one solution), multiple ISDs may be required to ensure the operational readiness of each specific component of the overall solution. The ISD strategy is developed by the service team with help from the ISD Executive Secretariat, approved by the Investment Decision Authority and documented in the implementation strategy and planning document. Follow-on revisions to the ISD strategy must be approved by the ISD authority.

The ISD is recorded in the record of decision. ISD action plans for resolving remaining operational readiness issues are included as an attachment to the record of decision. Status of ISD action plans is tracked and reported to the ISD Executive Secretariat until all issues are

resolved. Once all action plans are satisfactorily completed, the ISD Executive Secretariat provides a close-out memorandum.

New Content: <u>Acquisition Management Policy</u>:
Section 2.6 : In-Service Decision

The in-service decision (ISD) authorizes deployment of a solution into the operational environment. It occurs after demonstration of initial operational capability at the key test site(s) and before initial operational capability at any non-key site or waterfall facility. The decision is made following completion of joint acceptance and inspection by the operating service organization and the certification of compliance with testing, information security, and safety requirements. It establishes the foundation for operational readiness to be declared at subsequent sites. The ISD uses results from test and evaluation that report on the verification and validation of performance requirements, critical performance requirements, critical operational issues, and operational readiness (e.g., safety, effectiveness, and usability). The in-service review (ISR) checklist is used by the service organization to identify and resolve readiness issues before the ISD and to obtain concurrence from stakeholder organizations.

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Section 3.10.4.2 : Policy

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Old Content: Acquisition Management Policy:
Section 3.10.4.2 : Policy

For all acquisitions, the FAA shall:

- Ensure that appropriate quality assurance requirements are included:
- Require contractors to act on contractual quality assurance commitments:
- Ensure that Government quality and reliability needs are met:
- Accept only products that meet agreed to requirements.

Additionally, for NAS system acquisitions:

- Coordinate with the Quality Assurance Office to ensure that appropriate quality assurance requirements are incorporated:

- Delegate in-plant quality assurance and acceptance authority to the Quality Reliability Officer (QRO) or other Government agent.

New Content: Acquisition Management Policy:
Section 3.10.4.2 : Policy

For all acquisitions, FAA will:

- Ensure appropriate quality assurance requirements are included;
- Require contractors to act on contractual quality assurance commitments;
- Ensure Government quality and reliability needs are met; and
- Accept only products that meet agreed to requirements.

Additionally, for NAS system acquisitions:

- Require the contractor to report the status of requirements linked to critical performance requirements at specified regular intervals;
- Coordinate with the Quality Assurance Office to ensure appropriate quality assurance requirements are incorporated; and
- Delegate in-plant quality assurance and acceptance authority to the Quality Reliability Officer or other Government agent.

Red Line Content: Acquisition Management Policy:
Section 3.10.4.2 : Policy

For all acquisitions, ~~the~~ FAA ~~shall~~*will*:

- Ensure ~~that~~ appropriate quality assurance requirements are included~~:~~*;*
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- Accept only products that meet agreed to requirements.

Additionally, for NAS system acquisitions:

- *Require the contractor to report the status of requirements linked to critical performance requirements at specified regular intervals;*
- Coordinate with the Quality Assurance Office to ensure ~~that~~ appropriate quality assurance requirements are incorporated~~:~~*; and*
- Delegate in-plant quality assurance and acceptance authority to the Quality Reliability Officer ~~(QRO)~~ or other Government agent.