

Investment Policies and Procedures — Major Equipment

Handbook F-66B

January 2006
Transmittal Letter

- A. Revision.** This revised edition of Handbook F-66B, *Investment Policies and Procedures — Major Equipment*, updates the policy and procedures for Postal Service investments to ensure that projects adhere to the *Strategic Transformation Plan 2006–2010* strategy to reduce costs. Reducing costs includes the commitment to enhance corporate financial responsibility and to continue to invest in equipment, technology, and facilities. This handbook replaces the February 2002 edition.
- B. Explanation.** The following manuals are the source information related to the Postal Service's investment policies and processes. This handbook is one of six modules that are published and distributed separately. The following handbooks are used to address the unique requirements associated with specific investment types:
- Handbook F-66, *General Investment Policies and Procedures*.
 - Handbook F-66A, *Investment Policies and Procedures — Major Facilities*.
 - Handbook F-66B, *Investment Policies and Procedures — Major Equipment*.
 - Handbook F-66C, *Field Investment Policies and Procedures*.
 - Handbook F-66D, *Investment Policies and Procedures — Business Initiatives, Alliances, Real Estate Development, and Major Operating Expense Investments*.
 - Handbook F-66E, *Investment Policies and Procedures — Postal Support and Information Systems*.
- C. Changes.** The revised Handbook F-66B provides updated guidance concerning major equipment investment projects that require Headquarters approval, including documentation, review and approval, validation, compliance, and modification requirements.
- D. Online Availability.** You may view this handbook in electronic format on the Postal Service PolicyNet Web site.
1. Go to <http://blue.usps.gov>.
 2. Under "Essential Links" in the left-hand column, click on *References*.
 3. Under "Policies" on the right-hand side, click on *PolicyNet*.
 4. Click on *Hbks*.
- E. Comments and Questions.** Address comments or questions to:

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F. Effective Date. This revision is effective January 2006.

A handwritten signature in black ink that reads "Lynn Malcolm". The signature is written in a cursive, flowing style.

Lynn Malcolm
Vice President, Finance, Controller
Finance

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1 Introduction

1-1 About This Handbook

This handbook describes the investment process for major equipment investments that require Headquarters approval. The vice president and controller of Finance must approve exceptions to these policies and procedures. The sponsor must document requests for exceptions and approvals.

Note: You must present projects that have a common objective as a single plan. Do not split projects to avoid getting approval from a higher-level manager.

1-2 Purpose

This handbook is intended to serve as a guide to the requirements for:

- a. Initiating major equipment investments.
- b. Preparing the required documentation.
- c. Reviewing, validating, and approving investments at the Headquarters level.
- d. Tracking the compliance of investments with the approved plan.
- e. Requesting modifications to the plan, if necessary.

The purpose of these policies and procedures is to ensure that major equipment investments support the strategic objectives of the Postal Service, make the best use of available resources, and establish management accountability for investment decisions. These policies and procedures cannot, however, substitute for prudent business sense.

1-3 Definitions

This subchapter defines the principal categories of equipment investments.

Major equipment investments are equipment purchases that require Headquarters approval (see Exhibit 2-1, *Delegations of Approval Authority*, in Handbook F-66, *General Investment Policies and Procedures*). Note that the

terms *equipment investments*, *equipment programs*, and *equipment projects* are used interchangeably throughout this publication.

1-3.1 **Automation and Mechanization**

Automation equipment uses sophisticated technology to sort mail with little operator intervention (e.g., barcode sorters and multiline optical character readers). Mechanization equipment, which requires operator input on each mailpiece, is used to process letters, flats, and parcels (e.g., parcel sorters, flat sorting machines, canceling machines, and culling machines).

1-3.2 **Material Handling**

Material handling equipment is designed to expedite the flow of mail at a specific facility. Material handling equipment includes conveyors, tray management systems, loose mail systems, and mechanized sorting systems.

1-3.3 **Vehicles**

Postal vehicles include mail hauling, administrative, and special-purpose vehicles (e.g., tow trucks) and auxiliary equipment (e.g., snow plows and lift gates) used to modify vehicles for special needs.

1-3.4 **Support and Other Equipment**

Support and other equipment includes the following:

- a. Administrative and general support equipment (e.g., office and other small equipment).
- b. Maintenance equipment that is required to maintain Postal Service assets.
- c. Automated data processing (ADP) equipment and systems, including personal and mainframe computers, local area networks (LANs), process control systems (which control mail processing and mail handling equipment in plants) and data storage devices.
- d. Retail equipment, including lobby, window service, and self-service equipment.

1-3.5 **Research and Development**

Research and development (R&D) efforts typically precede project inception and deployment planning for equipment programs. Research and development are defined as follows:

- a. *Research* involves critical investigation aimed at discovering knowledge that will prove useful in developing a new project, service, or technique, or in bringing about a significant improvement to an existing process or program.
- b. *Development* is the translation of research findings into a plan or design for a new product or process or a significant improvement to an existing product or process. It includes the conceptual formulation, design, and

testing of project alternatives, construction and evaluation of prototypes, and operation of pilot sites.

1-4 Project Documentation

The sponsor, or requesting organization, prepares a Decision Analysis Report (DAR) recommending an investment and providing the interim decision makers and the approving official with adequate information to make a prudent business decision. Minimum requirements for DARs for major equipment projects are addressed in chapter 2. The DAR backup documentation requirements are addressed in chapter 3.

1-5 Review and Approval Process

The Headquarters review and approval process for major equipment projects is described in chapter 4. Finance must validate these projects (see chapter 5).

Field-sponsored projects are subject to a financial assessment at the area level, review by the area Capital Investment Committee (CIC), and approval by the area vice president before being forwarded to Headquarters for review, validation, and final approval (see Handbook F-66C, *Field Investment Policies and Procedures*).

1-6 Compliance Procedures

Major equipment projects are tracked throughout the progress of the investment using Compliance Reports, which the sponsor must prepare quarterly from the time a project is approved until 18 months after final deployment (see chapter 6).

1-7 DAR Modifications

If the scope of a project changes significantly or additional funding is required after approval, the sponsor must prepare a DAR Modification Request to request a change from the approved plan. The appropriate approving official must review, validate, and approve this request before the sponsor may take action that departs from the approved DAR (see chapter 7).

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2 Decision Analysis Report

2-1 About This Chapter

This chapter presents the minimum requirements for DARs for major equipment projects. The DAR backup documentation requirements are addressed in chapter 3. Modifications to DARs are addressed in chapter 7.

2-2 Purpose of a Decision Analysis Report

The purpose of a DAR is to ensure that investments are properly documented and reviewed. A DAR must be prepared when the requiring organization requests an investment threshold. The DAR defines the problem and explains the need for the expenditure. The DAR must provide sufficient detail to enable the reviewing and approving officials to make an informed decision.

2-3 Responsibility

2-3.1 Sponsor

The sponsor of a major equipment project is the Headquarters vice president or other person in the functional area that is requesting the project. The sponsor is responsible for ensuring that the DAR and all required backup materials are prepared. The sponsor is also responsible for ensuring that the project is implemented according to the final approved DAR.

2-3.2 Preparer

Either the sponsoring group or Engineering may prepare the DAR for a major equipment project.

2-3.3 Reviewer

A manager in the sponsoring organization or Engineering must review the DAR for a major equipment project before the preparer forwards the DAR to the approving officials. The reviewer's signature indicates concurrence with the preparer's report and analysis.

2-3.4 Approving Officials

The DAR must be approved at the level specified in the Delegations of Approval Authority that Finance issues. Major equipment projects may require approval by all of the following:

- a. Plant or district manager.
- b. Area Capital Investment Committee (CIC).
- c. Vice president of Area Operations.
- d. Headquarters vice president or chief operating officer (COO).
- e. Headquarters CIC.
- f. Postmaster general (PMG) and chief executive officer (CEO).
- g. Board of Governors (after review and concurrence by the Capital Projects Committee of the Board).

2-4 DAR Planning Activities

A number of planning activities generally occur before the sponsor prepares a major equipment DAR. For example, the sponsor of the project performs the following activities:

- a. Identifies a need and conducts an initial briefing meeting to discuss DAR assumptions and schedules with the appropriate functional areas.
- b. Develops the DAR with site-specific information or general projections, justification, and a deployment schedule.
- c. Submits a draft DAR with supporting backup documentation, including an assumptions list, to Finance.

2-5 Format

All DARs that require Headquarters approval must be prepared as follows:

- a. Use Microsoft Word for the text and Microsoft Word, Project, or Excel for the exhibits, in accordance with Postal Service standards.
- b. Format the text in Arial 10-point type, left-justified, and single-spaced.
- c. Set all margins (top, bottom, right, and left) to least 1 inch.
- d. Number all pages after the table of contents, except page 1.
- e. Title all exhibits and include the name of the project as a header on each page.
- f. Spell out numbers from zero to nine, and use numerals for larger numbers. However, use numerals for all measurements, percentages, and dollar amounts (e.g., 6.4 acres, 3 years, 7 percent, and \$28.2 million).
- g. Spell out terms the first time they are used; if an abbreviated form is commonly used, include it in parentheses; thereafter, use the acronym.

- h. Print out the document on paper that measures 8-1/2 by 11 inches. Print on one side only.

See exhibit 2-3 for a sample DAR in the approved format.

2-6 DAR Components

A DAR is composed of a narrative section, exhibits, and backup documentation. The DAR must include the required components for the type of project being requested (see exhibit 2-1). The complexity of the project determines the level of detail required. The DAR must be concise, direct, and detailed enough to enable the reviewing and approving officials to adequately assess the project. This subchapter contains brief descriptions of each required component of the DAR in the order that they appear in the document.

2-6.1 Cover Page

The cover page includes the Postal Service logo, the words “DECISION ANALYSIS REPORT,” the name of the project, the location (if applicable), and the preparation date. If the DAR contains proprietary information, include the words “RESTRICTED INFORMATION” to ensure confidentiality.

2-6.2 Signature Page

Signing the DAR indicates agreement with the project’s concepts, assumptions, and operational and budgetary impacts. Signatures of acting managers “for” reviewing and approving officials are not accepted. Acting managers may not sign a DAR except in cases of long-term absence or for details where a temporary change in authority has been documented.

The signature page must conform to the following format:

PREPARED BY:	<u><Signature and date signed></u>	
	<Typed name, title, and organization>	Date
REVIEWED BY:	<u><Signature and date signed></u>	
	<Typed name, title, and organization>	Date
APPROVED BY:	<u><Signature and date signed></u>	
	<Typed name, title, and organization>	Date

In most cases the sponsor signs in the “APPROVED BY” signature block. When a project impacts multiple approval levels or multiple functional areas, you may add “APPROVED BY” signature blocks. In some situations, you may need to add a separate “SPONSORED BY” block.

2-6.3 Table of Contents

The table of contents lists each main heading and exhibit title and the beginning page number.

2-6.4 **Executive Summary or Introduction**

The DAR for major equipment projects begins with an executive summary or introduction that briefly highlights each major section of the DAR. Include enough detail to convey an accurate understanding of the project. An executive summary usually runs 1–2 pages. If the DAR narrative is less than 10 pages, a brief introduction may suffice.

Follow these guidelines when preparing the executive summary or introduction:

- a. Write this section after completing the rest of the DAR.
- b. Avoid using technical terms. Explain any terms that may be unfamiliar to the approving officials.
- c. Do not include any information that is not discussed in more detail elsewhere in the DAR.

2-6.5 **Background**

In the background section, describe the problem or opportunity that requires a request for new equipment. Include information needed to understand the business case presented, such as relevant history, what has prompted the proposal, the function to be performed, and how the investment fits into corporate plans. Some of the following factors are often cited:

- a. Corporate strategies, goals, and objectives (e.g., the Strategic Plan, Voice of the Customer, Voice of the Employee, and Voice of the Business).
- b. Productivity improvements.
- c. Service improvements.
- d. Customer service enhancements.
- e. Economic and business opportunities.
- f. Technological advances.
- g. Process re-engineering efforts.
- h. Revenue generation.
- i. Demographics (population changes impacting revenue and volume growth).
- j. Safety, health, and environmental issues.
- k. Capacity issues.
- l. Avoidance of catastrophic failures.
- m. Future or next phases.

Test results or review findings may also prompt the need to implement a project. In this case, one of the following source documents may be the driver for a project:

- a. Pilot site or prototype testing results.
- b. Engineering team findings.
- c. Outside consultant studies (e.g., architectural/engineering report).

- d. Financial, Inspector General, or Inspection Service reviews or audits.
- e. Work group or functional recommendations (e.g., productivity improvements, component changes).

2-6.6 **System Description**

In the system description section, describe the new system or upgrade and related operations, and include diagrams and illustrations as applicable. Explain any technical jargon and concepts so that a person who is not an expert in the field can understand the proposed project. If you cite features or attributes, then explain their relevance, importance, and benefit.

2-6.7 **System Benefits**

The expected system benefits typically include factors such as the following:

- a. Meeting customer needs.
- b. Providing service and productivity improvements.
- c. Improving working conditions (e.g., safety, health, and environmental concerns).
- d. Moving operations from a manual environment to an automated or mechanized environment.
- e. Providing increased efficiencies from replacement of obsolete equipment or parts.
- f. Improving operations.
- g. Reducing downtime and maintenance costs.
- h. Avoiding catastrophic failures.
- i. Generating revenue.

Use graphics and cite test results if they will provide a clearer understanding of the benefits. Also note that R&D activities, such as pilot site or testing information, that support the investment decision.

2-6.8 **Alternatives**

In the alternatives section, discuss and analyze all viable solutions to the problem that were considered and meet the requirements of the project. Clearly indicate which alternative you recommend, how you selected the recommended alternative, and how this alternative will solve the identified problem. Also explain why each other alternative was eliminated. For many equipment projects, there may be only one alternative.

2-6.8.1 **Net Present Value Comparison of Alternatives without a Positive ROI**

While equipment projects are typically generative in nature, there may be instances where a positive return on investment (ROI) does not result — even when several alternatives are considered and analyzed. Therefore a NPV comparison of the alternatives is not possible due to the negative cash flows. Consequently, a comparison that identifies differences between NPVs

of the alternatives must be made to determine the superior alternative. See Handbook F-66, section 5.4.12.11 for samples of non-generative ROI comparisons.

2-6.8.2 **Comparison of Alternatives for Postal Support and Information Systems**

In addition, Handbook F-66E, *Investment Policies and Procedures — Postal Support and Information Systems*, contains a sample DAR (Transaction Concentrator Replacement) that includes and NPV comparison.

2-6.9 **Justification**

In the justification section, identify and explain how you investigated the project and the reasons for making the investment. State the expected benefits to be derived from the system (e.g., customer service or productivity improvements, improved working conditions, automated or mechanized environment in lieu of a manual environment, increased efficiencies from replacing obsolete equipment, improvements in operations, and revenue generation). Include the scope of the project, criteria, and considerations other than economics used in evaluating the decision, and the current status of the opportunity. You may include illustrations, tables, and references. You may find it helpful to divide the justification section into subsections with headings.

2-6.10 **Developmental Plans — R&D Projects Only**

A developmental plans section is required only for R&D projects. Provide the following information in narrative or chart form:

- a. Developmental plans.
- b. Anticipated goals and objectives.
- c. Expected outcome.
- d. Time frames and deployment schedules.
- e. Methodology and criteria used to measure results (i.e., performance metrics).

2-6.11 **Future Plans — R&D Projects Only**

A future plans section is required only for R&D projects. If this is a phased project, identify future plans based on pilot results, including anticipated costs and benefits, expected time frames, and potential deployment schedules.

2-6.12 **Procurement and Deployment Plan**

A deployment schedule for both capital and expense investments is required for all projects. You may present the information in narrative form or as a table. For site-specific projects, include the deployment schedule for each site. If existing equipment will be redeployed or removed, include the redeployment or removal schedule. Also indicate how the equipment will be

procured (e.g., competitive bid or sole-source contract) and when the contract will be awarded. If old equipment is to be disposed, include adequate funds in the cash flow to cover disposal costs.

2-6.13 **Performance Metrics**

Performance metrics are the basis for determining the success of the investment and will be used to monitor performance throughout all phases of the program (i.e., development, production, deployment, post deployment). Performance metrics are also analyzed as part of the assessment process when program reviews, cost studies and audits are undertaken. Identify and incorporate metrics into the DAR before validation.

2-6.13.1 **Process**

The process for developing metrics consists of six steps:

1. Identify the source(s) of savings in the DAR.
2. Select and develop metrics that have a direct relationship with the source of the savings.
3. Gain consensus with stakeholders (e.g., Operations, Engineering, Finance, Marketing, and Human Resources).
4. Identify the data collection activity that will be required — existing or new.
5. Identify the database and systems where the metrics will be retained — from which reports will be generated.
6. Incorporate the metrics into the DAR.

2-6.13.2 **Selecting and Developing Metrics**

Results metrics (i.e., Indicators) measure savings (i.e., requirements) identified in the DAR. Each valid requirement has one metric — the source of savings. For example, if workhours and spare parts are saved — each should have a metric that indicates if the expectations in the DAR are being met. Results metrics measure the output of the process and will need to have a direct relationship to the source(s) of savings articulated in the DAR. The steps for developing DAR metrics are as follows:

- a. Link a metric to the source of each DAR savings element.
- b. Establish measurements at intervals that allow useful judgments, at 10 percent, 30 percent, and 70 percent, of the project implementation (i.e., deployment phases of the program).
- c. Consider statistical sampling or surveys if existing systems cannot provide the required metrics.
- d. Comprehensively describe how the metric is measured.
- e. Identify the source of the data and the systems used to capture and generate reports.

Metrics are the responsibility of the sponsor, who must ensure the collection of appropriate data. The metrics answer the sponsor's questions — how are you doing and how do you know if you are doing a good job. A data (i.e.,

metric) supplier may not be able to meet the requirement fully now, but can show evidence that they are working to do so and can provide a timeline of when they expect to meet the metric requirement. For example, a system to collect the data required may not be fully deployed — but will be deployed in enough time to measure the success of the DAR program.

2-6.13.3 **Incorporation of Metrics into DAR**

You must incorporate the appropriate metric(s) into the DAR before validation. Sponsors must resolve issues that stakeholders raise during the review and concurrence process. Validation of the draft DAR by Capital and Program Evaluation will ensure that proposed metrics are sufficient to provide corporate oversight of the program throughout implementation and deployment.

Note: For detailed metrics requirements see Handbook F-66.

2-6.14 **Economics**

In the economics section, discuss economic issues relevant to the project (e.g., the requirements call, methodology used in the pilot test or R&D effort, savings, risk assessment, and technological and operational risk). Include the basis or principle factors driving the economics. If the project is being justified on other than an economic basis, then state this in the economics section.

If multiple analyses are performed, then summarize those that are germane to the investment decision (e.g., expected results, sensitivity, risk, break even, minimum hurdle rate, and threshold, lower-bound, and upper-bound scenarios). The minimum hurdle rate is the minimum ROI acceptable to the approval authority for a given equipment project. The lower-bound and upper-bound economic scenarios correspond to the minimum and maximum performance assumptions respectively.

In the economics section you may also include operating information for the first full year, such as the number of full-time equivalent positions that will be saved as a result of procuring and deploying the equipment. You must identify any obligations incurred beyond the life of an R&D effort (such as lease obligations on buildings or contractual expenses beyond the test).

2-6.15 **Financial Summary**

Include a chart in the established format showing the total capital and expense investments and the results from the cash flow analysis, including operating variances from baseline operations.

The following financial summary format is used for traditional projects:

Financial Summary

	10-Year Operating Period	
	(\$ in thousands)	
Capital Investment		\$ xx,xxx
Expense Investment		\$ xx,xxx
Total Investment		\$ xx,xxx

Total Operating Variances	\$ xx,xxx
Net Present Value discounted at _____%	\$ xx,xxx
Return on Investment	xx.x%

	At Lower Bound	At Upper Bound
Operating Variances	\$ xx,xxx	\$ xx,xxx
Net Present Value discounted at _____%	\$ xx,xxx	\$ xx,xxx
Return on Investment	xx.x%	xx.x%

2-6.16 Recommendation

In the recommendation section, briefly state the recommendation, including the funding required, what will be delivered, anticipated procurement dates, and the major benefits that are expected to result from implementing the project. In this section, include only information that has been discussed in detail elsewhere in the DAR.

2-6.17 Exhibits

DARs for most major equipment projects include the following exhibits:

- Cash flows.
- Cash flow line-item descriptions.
- List of sites.
- List of major assumptions.
- Project schedule.
- Economic summary (include for R&D projects only).

Additional exhibits, such as the following, may be included if they will help clarify the proposed project and ensure a sound business decision:

- Generalized schematics or flowcharts.
- Floor layouts.
- Volume forecasts.
- Service and productivity improvements.
- Pictures.
- Maps.

Include site-specific deployment plans and additional cash flows if needed or requested.

2-6.17.1 Cash Flow Analysis

A cash flow is required for all major equipment projects except R&D. The cash flow is used to itemize investments and quantifiable costs and benefits over the applicable analysis period (usually the investment period plus the standard life of the equipment or 10 years after final deployment) in order to determine the return on investment and net present value that will result from

implementing the project. When a cash flow is required, it is also included as part of the backup documentation. A cash flow is required for each scenario (i.e., threshold, upper-, and lower-bound).

2-6.17.2 **Cash Flow Line-Item Descriptions**

The Cash Flow Line-Item Descriptions exhibit is used to explain each line item in the cash flow analysis — capital and expense investments, operating variances, and costs or savings. Provide unit costs, calculations, charts, and references as appropriate.

2-6.17.3 **List of Sites**

The List of Sites exhibit is required for traditional equipment projects, but is optional for accelerated equipment projects since they are not justified on site-specific information.

2-6.17.4 **Major Assumptions**

The Major Assumptions exhibit lists the significant assumptions used in the analysis of the project (e.g., volume projections, deployment plans, and productivity levels).

2-6.17.5 **Project Schedule**

The DAR for major equipment projects must include a milestone chart that shows each major step in the DAR and deployment process (see exhibit 2-2 for a list of required milestones).

2-6.17.6 **Economic Summary — R&D Projects Only**

You must include an economic summary for R&D projects if it helps support the DAR narrative. This exhibit is similar to a financial summary (see section 2-6.14) except that it identifies more specifically the costs of the proposal (e.g., a list of hardware items under the heading “Capital”).

2-7 **Sample DAR**

A sample DAR for major equipment projects is included for general guidance in developing a DAR. See exhibit 2-3.

Exhibit 2-1 (p.1)

Required DAR Components by Type of Project

Type of Project	Automation/ Mechanization	Material Handling (Fixed Mechanization)	Vehicles	Support and Other Equipment	Research and Development	
Components	Cover Page	Cover Page	Cover Page	Cover Page	Cover Page	
	Signature Page	Signature Page	Signature Page	Signature Page	Signature Page	
	Table of Contents	Table of Contents	Table of Contents	Table of Contents	Table of Contents	
	Executive Summary or Introduction	Executive Summary or Introduction	Executive Summary or Introduction	Executive Summary or Introduction	Introduction	
	Background	Background	Background	Background	Background	
	System Description	System Description	System Description	System Description	System Description	
	N/A	N/A	Alternatives	Alternatives	N/A	
	Justification/ System Benefits	Justification/ System Benefits	Justification/ System Benefits	Justification/ System Benefits	Justification/ System Benefits	
	Procurement and Deployment Plan	Procurement and Deployment Plan	Procurement and Deployment Plan	Procurement and Deployment Plan	Procurement and Deployment Plan	
	Economics	Economics	Economics	Economics		
	Financial Summary	Financial Summary	Financial Summary	Financial Summary	Financial/ Economic Summary	
	Recommendation	Recommendation	Recommendation	Recommendation	Recommendation	
	Exhibits: Cash Flow Line-Item Descriptions List of Sites Major Assumptions Project Schedule	Exhibits: Cash Flow Line-Item Descriptions List of Sites Major Assumptions Project Schedule	Exhibits: Cash Flow Line-Item Descriptions List of Sites Major Assumptions Project Schedule	Exhibits: Cash Flow Line-Item Descriptions List of Sites Major Assumptions Project Schedule	Exhibits: Cash Flow Line-Item Descriptions List of Sites Major Assumptions Project Schedule	Exhibits: Economic Summary Line-Item Descriptions Project Schedule
	Backup Documentation*	Backup Documentation*	Backup Documentation*	Backup Documentation*	Backup Documentation*	

* The DAR backup documentation is a separate document from the DAR (see requirements in chapter 3).

Exhibit 2-2 (p.1)

Equipment Project Schedule Milestones

See the Project Schedules in the sample DARs (exhibits 2-3 and 3-4) for the appropriate format.

Predeployment Activities

1. **Project Inception** — The date the sponsor initiates deployment planning for equipment projects that previously were the subject of an R&D effort (i.e., when the sponsor decides that a good idea has been conceived, identifies a need for the project, has developed a final scope for the idea, and decides to move forward on that idea). Generally, this is the date a project moves out of the R&D stage, although R&D and prototype evaluation may continue after this date.
2. **Prototype Evaluation** — The period for evaluating the operational prototype of the item or system proposed for deployment.
3. **DAR Preparation** — The period during which the sponsor develops a draft DAR and compiles backup documentation until the DAR is ready to be submitted for review.
4. **DAR Submission & Finalization** — The period during which the draft DAR is circulated for review and the sponsor revises the DAR based on functional comments until the final DAR is submitted to Finance for validation.
5. **Validation Process** — The period that begins when Finance initially reviews the draft DAR and backup package and ends when the vice president and controller of Finance signs the validation memo.
6. **CIC Review** — The date the area Capital Investment Committee meets with the sponsor and votes whether to proceed with the project.
7. **PMG Review** — The date (usually within one week of the CIC meeting) when the postmaster general meets with the sponsor and determines whether the project should proceed.
8. **CPC Review** — The date the Capital Projects Committee (CPC) meets to review the project and makes a recommendation to the full Board of Governors.
9. **BOG Approval and Funding** — The date the Board of Governors discusses and considers the project for approval. Contract awards and deployment schedules are usually dependent on this date.
10. **Compliance Reporting** — Compliance reporting begins with the approval of the investment by the Board (or postmaster general or officer as appropriate), and ends 18 months (6 quarters) after the program has been completed.
11. **Contract Award** — The time required by Purchasing or Procurement to advertise and award the contracts necessary to implement the deployment.

Deployment Activities

1. **In-plant Test** — Testing that takes place in the vendor's manufacturing plant that tests the equipment being purchased by the Postal Service. After this test, the equipment is usually moved into a postal facility to prepare for the First Article Test.
2. **First Article Test and Customer Acceptance Test** — The date or time frame during which the first sample of purchased equipment or software is placed and tested for functionality, quality, and compliance with contract specifications. After first article acceptance, the supplier begins deployment as scheduled to other sites.

Exhibit 2-2 (p.2)

Equipment Project Schedule Milestones

3. **Fixed Mechanization Award and Installation** — The time allotted for Purchasing to award the contract and Engineering (through Operations) to oversee installation of the equipment on site.
4. **Deployment and Implementation** — The time frame during which the purchased equipment and software is deployed to sites in accordance with the deployment plan. If the schedule for equipment and software deployment are different, then schedules for both must be included. This activity includes both begin and end dates.
5. **First Full Fiscal Year of Operations/Cost Savings** — The time frame in which cost savings for the first full operating fiscal year following full deployment, as reflected in the DAR, are realized.
6. **Submission of Additional Phase DAR** — The date on which the DAR for phased projects is to be submitted to begin a new review and approval process.

Post Deployment Activities

Project Completion Date — The project completion date is when the sponsor *expects* to see no capital or expense investment dollars charged to the project and the project has all the functionality promised in the DAR. This date is used to determine if the project has been completed on time.

Exhibit 2-3 (p. 1)

Sample DAR — Site-Specific Equipment Project



DECISION ANALYSIS REPORT

**Flat Recognition Improvement
Program — Phase 2**

NETWORK OPERATIONS MANAGEMENT
ENGINEERING

RESTRICTED INFORMATION

April 4, 2005

Exhibit 2-3 (p. 2)

Sample DAR — Site-Specific Equipment Project

**DECISION ANALYSIS REPORT
FLAT RECOGNITION IMPROVEMENT PROGRAM — PHASE 2**

PREPARED BY:

<Printed Name> Date
Requirements Analyst

<Printed Name> Date
Acting Manager, Equipment Requirements &
Economic Analysis

REVIEWED BY:

<Printed Name> Date
Manager, Automation Equipment

<Printed Name> Date
Manager, Technology Planning & Analysis

<Printed Name> Date
Manager, Processing Operations

APPROVED BY:

<Printed Name> Date
Vice President, Network Operations
Management

<Printed Name> Date
Vice President, Engineering

Exhibit 2-3 (p. 3)

Sample DAR — Site-Specific Equipment Project

Flat Recognition Improvement Program — Phase 2

Decision Analysis Report

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Restricted Information

Exhibit 2-3 (p. 4)

Sample DAR — Site-Specific Equipment Project

Flat Recognition Improvement Program — Phase 2

Decision Analysis Report

1.0 Introduction

This Decision Analysis Report (DAR) recommends approval of \$xxx.x million in capital funds and \$x.x million in expense funds, for a total investment of \$xxx.x million, to continue enhancing the address recognition technology used in flat mail automation equipment. This is the second phase of a program that is improving optical character reader (OCR) acceptance rates and reducing OCR error rates on all Automated Flat Sorting Machine (AFSM) 100 and Upgraded Flat Sorting Machine (UFSM) 1000 equipment.

The funding requested will cover OCR acceptance rate increases of 6.12 percentage points for the AFSM 100 and 4.13 percentage points for the UFSM 1000, as well as error rate reductions on both machines. Together, these improvements provide a xx.x percent return on investment. A pay-for-performance contract will be awarded which ensures that the supplier meets or exceeds designated performance goals to be compensated. Thus, the supplier will only be paid for improvements that are actually achieved.

2.0 Background

Our flat sorting network is composed of AFSM 100s and UFSM 1000s. The AFSM 100, which is our most capable and efficient flat sorter, can handle the majority of flat mail that requires processing in our plants. The UFSM 1000, although a slower machine, is able to process most of the remaining flat mail that cannot be processed on the AFSM 100.

Deployment of 350 operational Flat Sorting Machine (FSM) 1000s was completed in June 1998 while deployment of 534 operational AFSM 100s ended in April 2002. The AFSM 100s came equipped with OCRs and have been a tremendous asset to our flat processing environment. Retrofit of the FSM 1000s with OCRs and automatic feeders was completed in November 2002, and they are now called the Upgraded Flat Sorting Machine (UFSM) 1000s.

Funding for Phase 1 of the Flat Recognition Improvement Program (FRIP) was approved in December 2002. The first and only FRIP Phase 1 improvement deployments thus far, for both the AFSM 100 and the UFSM 1000, occurred in November 2004. The following table illustrates the improvements planned under FRIP Phase 1, the actual results achieved, and a rough estimate of the results expected from the final FRIP Phase 1 release planned at the end of this summer.

FRIP Phase 1 Program Results

	AFSM 100 Accept Rate Increase (%)	AFSM 100 Error Rate Reduction (%)	UFSM 1000 Accept Rate Increase (%)	UFSM 1000 Error Rate Reduction (%)
Targeted DAR Improvements	3	1	4.5	1.5
Maximum DAR Improvements	4	2	6	2.5
Actual Release 1 Improvements (November 2004)	2.26	0.16	6.61	0.8
Projected Release 2 Improvements (Summer 2005)	1.24	0.19	1.28	0.2
Total Improvement Expected*	3.5%	0.35%	7.89%	1%

* Higher than planned acceptance rate improvements have been achieved on the UFSM 1000 under FRIP Phase 1.

Exhibit 2-3 (p. 5)

Sample DAR — Site-Specific Equipment ProjectFlat Recognition Improvement Program — Phase 2Decision Analysis Report

As a result of the November 2004 release of FRIP 1 improvements, the AFSM 100 OCR acceptance rate now exceeds 90 percent, while the UFSM 1000 OCR acceptance rate is currently about 85 percent for most mail but only about 74 percent for the more difficult to read newspapers.

There is one more FRIP Phase 1 software release planned at the end of this summer for each machine that is expected to produce slight improvements on both the AFSM 100 and the UFSM 1000. These releases will occur between now and when the proposed Phase 2 effort is implemented. For both machines, the improvements covered under Phase 2 will be evaluated against the OCR baseline performance that exists at the time each proposed upgrade is presented to us by the supplier for evaluation.

3.0 System Description

The funding requested will be used to upgrade the address recognition capabilities of our flat automation equipment. Incremental software releases and hardware upgrades will improve address recognition technology on all AFSM 100s and UFSM 1000s. The essential elements of the proposed upgrades are as follows:

- AFSM 100 — Three incremental software releases along with new address reader computers and new cameras are expected to exploit a variety of technologies that could improve the OCR acceptance rate up to 6.12 percentage points and reduce error rates by 0.7 percentage points by September 2008.
- UFSM 1000 — Three incremental software releases along with implementation of secondary address readers and new cameras could increase the OCR acceptance rate up to 4.13 percentage points and reduce error rates by 0.6 percentage points by September 2008.
- Performance-based contracts in which payments will be tied to demonstrated performance improvements above established baselines. Rigorous tests will be conducted by Engineering to verify performance increases.

This program will increase the amount of mail sorted to its final destination on flat sorting machines. As our ability to resolve addresses improves, so does productivity. Mail can be sorted without the manual keying of addresses required for unresolved images or the additional handling of mail required for OCR rejects or when errors occur in the OCR acceptance process.

4.0 Justification/System Benefits

The primary benefit from a higher AFSM 100 acceptance rate will be a reduction in keying workhours at the remote encoding centers (RECs) where the nonreadable mailpiece images are sent for processing. The main benefit from a higher UFSM 1000 OCR acceptance rate will be a reduction in workhours required for UFSM 1000 keying or manual flat sorting since fewer OCR rejects will have to be sorted manually or via the UFSM 1000 keying operation.

Exhibit 2-3 (p. 6)

Sample DAR — Site-Specific Equipment ProjectFlat Recognition Improvement Program — Phase 2

Decision Analysis Report

In today's environment, the mail that is misread by an OCR is incorrectly sorted and requires additional manual handlings to send it to its final destination. Lower OCR error rates will increase the amount of flat mail that is correctly sorted on the AFSM 100s and UFSM 1000s, resulting in a reduction in workhours required in manual flat processing operations at plants and delivery units. We have also included 10 percent of the potential savings from carrier operations in this report. Ultimately, by reducing the OCR error rates, we will be able to improve service to our customers by delivering more mail to its final destination in a timely manner.

5.0 Procurement and Deployment Plans

Pending funding approval, a sole-source contract award with the existing OCR supplier is planned. A single firm approach allows the Postal Service to offer system enhancements and capture program savings at the earliest time. The supplier will only be paid for the improvements demonstrated, and only after the Postal Service has verified them.

Multiple software releases are expected during the course of this contract. Tests will be conducted by the Postal Service, using a representative national sample of flat mail images, to verify performance improvements and compliance with throughput and error rate parameters. All AFSM 100 software improvements and releases will be evaluated using a test deck that includes approximately 100,000 scored images that are injected into the AFSM 100 OCR, in a lab setting, for performance measurement.

All UFSM 1000 OCR software improvements and releases will be evaluated in the same way. A test deck of approximately 160,000 scored images will be injected into the UFSM 1000 OCR, in a lab setting, and performance will be measured. The improvements will focus on the unique characteristics of the UFSM 1000 mail base which includes newspapers, 'lumpy' pieces, etc.

Lab-verified recognition improvements for these machines will be followed by single-site and multi-site field testing. Strict error specifications will be maintained throughout these tests. The FRIP Phase 2 contract award is expected in July 2005. Incremental software releases are projected to occur in September 2006, September 2007, and September 2008 for the AFSM 100 and the UFSM 1000. Deployment of computer upgrades for the AFSM 100 and secondary address readers for the UFSM 1000 is anticipated in September 2006, while deployment of new cameras is expected in September 2007 for both machines. The supplier will be compensated for improvements achieved in relation to the baseline acceptance and error rates of the equipment and software deployed at that time, provided they do not lower the finest sort rate, finalization rate, and throughputs of the system. A program schedule is included as exhibit 5.

Exhibit 2-3 (p. 7)

Sample DAR — Site-Specific Equipment Project**Flat Recognition Improvement Program — Phase 2****Decision Analysis Report****5.1 Performance Metrics**

The return on investment of this program is generated primarily from labor savings in remote keying and mail processing operations. There are also some savings expected at the delivery units, in both clerk and carrier functions. Since substantial savings are based on specific improvements in the AFSM 100 and UFSM 1000 OCR acceptance rates, the metric for measuring the performance of this project will be the sustained improvement in the AFSM 100 and UFSM 1000 OCR acceptance rates for actual operations (following FRIP Phase 2 installation). These values will be calculated using recorded (before and after) national Management Operating Data System (MODS) data for AFSM 100 operations and UFSM 1000 operations.

To measure error rate performance improvements, tests will be conducted by the Postal Service using a large representative national sample of flat mail images, including approximately 100,000 scored images that will be injected into the AFSM 100 in a lab setting. This will be followed by single-site and multi-site field testing, and strict error specifications will be maintained throughout the tests.

6.0 Economics**6.1 Basis of Savings**

The savings included in this report were derived from a model similar to the one used in the first FRIP DAR, which was approved by the Board of Governors in November 2002. The savings expected from this program are from the same categories as in the first FRIP DAR: REC and UFSM 1000 keying operations, manual flat sorting operations, and carrier operations.

Increases in the AFSM 100 OCR acceptance rate will reduce keying workhours at the RECs, while a higher UFSM 1000 OCR acceptance rate will decrease UFSM 1000 keying workhours or manual flat sorting workhours. Lower OCR error rates will produce work hour savings in manual flat sorting and carrier operations. The work hour savings from this program will start in fiscal year (FY) 2007. During FY 2010, which is the first full year of savings, this program is projected to produce about \$xx.x million in labor savings from the AFSM 100 improvements and about \$xx.x million in labor savings from the UFSM 1000 improvements. No supervision savings are included in this report.

A 2-month lag in capturing savings from the time each incremental upgrade is fully deployed has been included in return on investment projections to allow for personnel scheduling adjustment at the plants, delivery units, and RECs. For both machine types, actual performance improvements will be measured through formal tests using a large representative sample of address images collected at numerous sites. The labor savings budgeted for this program will reflect the actual improvements achieved in each incremental upgrade. Exhibit 3 lists the major assumptions used in this analysis.

Exhibit 2-3 (p. 8)

Sample DAR — Site-Specific Equipment Project**Flat Recognition Improvement Program — Phase 2****Decision Analysis Report****6.2 Risk**

The technical, operational, and financial risks associated with this program are low since an incentive-based, pay-for-performance contract will be awarded. The software will be based on proven concepts and will be thoroughly tested and verified for performance before full-scale deployment. Hardware upgrades will utilize standard computer and camera equipment.

The labor savings estimates included in the cash flow analysis are proportional to the capital investment payment timeline. Sensitivity analyses were also performed to project the impacts of declines in processed flat mail volumes, reductions in savings capture rates, and the elimination of carrier savings. Under the cash flow scenario, a 14 percent decline in processed volumes on both the AFSM 100 and the UFSM 1000 yields a return on investment (ROI) of 19.9 percent. The capture rate sensitivity analysis demonstrated that only 65 percent of the available acceptance savings need to be captured to achieve a 20 percent ROI. The elimination of all carrier savings would reduce the ROI by 1.6 percentage points, to 24.7 percent. A summary of the results from the different sensitivity analyses that were performed are included in exhibit 4.

7.0 Financial Summary

The following summary highlights the required investment and expected savings for the requested flat OCR recognition improvements over a 5-year operating period.

**Flat Recognition Improvement Program — Phase 2
Investment Summary (\$ in thousands)**

Capital Investment	\$xxx,xxx
Expense Investment	\$x,xxx
Total Investment	\$xxx,xxx

5-Year Operating Period

Operating Variances	\$xxx,xxx
Net Present Value Discounted at 9.5%	\$xx,xxx
Return on Investment	xx.x%

Exhibits 1 and 2 contain the cash flow and the cash flow line item descriptions, respectively. The percentage point improvements used to generate the cash flow scenario are:

	AFSM 100	UFSM 1000
Expected OCR Accept Rate Improvement	6.12%	4.13%
Expected OCR Error Rate Reduction	0.7%	0.6%

Exhibit 2-3 (p. 9)

Sample DAR — Site-Specific Equipment Project

Flat Recognition Improvement Program — Phase 2

Decision Analysis Report

8.0 Recommendation

It is recommended that \$xxx,xxx,xxx in capital funds and \$x,xxx,xxx in expense funds, for a total of \$xxx,xxx,xxx, be approved for implementing improvements to OCRs on all AFSM 100 and UFSM 1000 machines.

Exhibit 2-3 (p. 10)
Sample DAR — Site-Specific Equipment Project

Exhibit 1
Flat Recognition Improvement Program - Phase 2 Cash Flow
Expected Scenario (000s)

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Project Year	0	1	2	3	4	5	6	7	8	
Capital Investment										
Hardware & Software	(\$0,000)	(\$0,000)	(\$00,000)	(\$0,000)						(\$00,000)
Site Preparation	(\$0,000)	(\$0,000)	(\$0,000)	(\$000)						(\$0,000)
Initial Site Spares	(\$0,000)	(\$0,000)	(\$0,000)	(\$000)						(\$0,000)
Image Collection & Scoring	(\$0,000)	(\$0,000)	(\$0,000)	\$0						(\$0,000)
Quality Assurance	(\$0,000)	(\$0,000)	(\$0,000)	(\$000)						(\$0,000)
Training Equipment	(\$00)	(\$00)	(\$00)	(\$00)						(\$000)
Training Development & Delivery	(\$00)	(\$00)	(\$0,000)	(\$000)						(\$0,000)
Documentation	(\$00)	(\$00)	(\$0,000)	(\$00)						(\$0,000)
Technical Data Package (TDP) Updates	(\$00)	(\$00)	(\$00)	(\$00)						(\$000)
Contingency @ 10% of all capital items	(\$0,000)	(\$0,000)	(\$0,000)	(\$0,000)						(\$00,000)
Total Capital Investment	(\$0,000)	(\$00,000)	(\$00,000)	(\$00,000)						(\$000,000)
Expense Investment										
Depot Spares	(\$000)	(\$000)	(\$000)	(\$000)						(\$0,000)
Total Expense Investment	(\$000)	(\$000)	(\$000)	(\$000)						(\$0,000)
Operating Variances										
Recurring Spares	(\$00)	(\$000)	(\$0,000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$0,000)
Postal Maintenance Labor	(\$00)	(\$000)	(\$0,000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$0,000)
Energy Costs	(\$00)	(\$000)	(\$0,000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$0,000)
Removal & Disposal of Old Computers/Cameras	(\$00)	(\$00)	(\$00)	(\$000)						(\$000)
Site Preparation	(\$00)	(\$000)	(\$0,000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$0,000)
Help Desk Support for AFISM 100	(\$0,000)	(\$0,000)	(\$0,000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$0,000)
Initial Maintenance Training & Tech Orientation (Field Labor)	(\$0,000)	(\$0,000)	(\$0,000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$0,000)
Initial Maintenance Training & Tech Orientation (Non-Labor)	(\$0,000)	(\$0,000)	(\$0,000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$0,000)
Recur. Maintenance Training - UFSM 1000 (Field Labor)										
Recur. Maintenance Training - UFSM 1000 (Non-Labor)										
Function 1 Labor Savings		\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$000,000
Function 2 Labor Savings		\$000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$00,000
Function 4 Labor Savings		\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$00,000
Total Operating Variances	(\$0,000)	(\$0,000)	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$000,000
Net Cash Flow	(\$00,000)	(\$00,000)	\$0,000	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$00,000	\$000,000
Return on Investment										
Net Present Value	00,0%									
	\$00,000									

Restricted Information

Exhibit 2-3 (p. 11)

Sample DAR — Site-Specific Equipment Project

Exhibit 2
Description of Cash Flow Line Items

Capital Items:

Hardware and Software — A total of \$xx million is included for all software upgrades and licenses and hardware purchases, including new computer equipment and cameras for the AFSM 100 and the UFSM 1000. This funding covers the following improvements:

- a. AFSM 100 — 6.12 percentage point increase in accept rate and 0.7 percentage point decrease in error rate.
- b. UFSM 1000 — 4.13 percentage point increase in accept rate and 0.6 percentage point decrease in error rate.

Site Preparation — Total funding of \$xxx,xxx (or \$xxx per machine) to support site preparation activities associated with new hardware and cameras purchased under this program.

Initial Site Spares — Total funding of \$x.xx million to cover initial site spares, including \$xx,xxx per site for initial AFSM 100 site spares; \$xx,xxx per site for initial UFSM 1000 site spares; \$xx,xxx for FRIP-unique UFSM 1000 spares; and \$xx,xxx for FRIP-unique AFSM 100 spares.

Image Collection and Scoring — Total funding of \$x.xx million to cover image collection and truthing of those images for acceptance testing purposes on the AFSM 100 and UFSM 1000.

Quality Assurance — Total funding of \$x.xx million to support AFSM 100 and UFSM 1000 quality assurance activities.

Training Equipment — Total funding of \$x.xx million to cover the purchase of training equipment.

Training Development and Delivery — Total funding of \$xxx,xxx to cover training development initial delivery by the vendor.

Documentation — Total funding of \$x.xx million to support updates to AFSM 100 and UFSM 1000 maintenance handbooks, repair specifications, and parts provisioning documentation.

Technical Data Package (TDP) Updates — Total funding of \$xxx,xxx to provide configuration management support of the vendor's TDP development effort.

Contingency at 10% of all capital costs — These funds will provide for unforeseen cost elements, price adjustments, or minor additional OCR improvements.

Expense Item:

Depot Spares — Total funding of \$x.xx million for an initial depot spare parts inventory of recognition components that will be required for the AFSM 100 and UFSM 1000.

Operating Variances:

Recurring Spares — Total funding of \$x.xx million to cover spare parts that will be needed for the AFSM 100 and UFSM 1000 due to hardware upgrades.

Postal Maintenance Labor — Total funding of \$xx.xx million to cover annual postal maintenance labor costs. This includes 7 hours per year for each AFSM 100 machine, and 138 hours per year for each UFSM 1000 machine.

Exhibit 2-3 (p. 12)

Sample DAR — Site-Specific Equipment Project

Exhibit 2
Description of Cash Flow Line Items
(continued)

Energy Costs — Total funding of \$x.xx million to cover energy costs associated with this program. This covers an annual cost of \$xxx per UFSM 1000 and \$xxx per AFSM 100.

Removal and Disposal of Old Computers/Cameras — Total funding of \$x.xx million to cover the removal and disposal of the old AFSM 100 and UFSM 1000 computers and cameras. The estimated cost is \$x,xxx per machine.

Site Preparation (Postal Labor) — Total funding of \$xxx,xxx which provides 10 hours per site for Postal Service maintenance labor used to perform site-related work due to hardware upgrades.

Help Desk Support for AFSM 100 — Total funding of \$x.xx million for supplier-provided help desk support for the AFSM 100 during the first 4 years of the program.

Initial Maintenance Training & Technical Orientation (Field Labor) — Total funding of \$xx.xx million to cover field labor costs associated with initial maintenance training. For the AFSM 100, this includes (1) 576 ET-11 hours per site, (2) 1,152 ET-12 hours, and 720 EAS-23 hours. For the UFSM 1000, this includes (1) 594 ET-11 hours per site, (2) 1,152 ET-12 hours, and 576 EAS-23 hours.

Initial Maintenance Training & Technical Orientation (Non-Labor) — Total funding of \$x.xx million for non-labor costs associated with initial maintenance training efforts.

Recurring Maintenance Training (Field Labor) — Total funding of \$x.xx million for recurring maintenance training on the UFSM 1000. This includes 72 ET-11 hours per UFSM 1000 site each year.

Recurring Maintenance Training (Non-Labor) — Total funding of \$x.xx million to cover non-labor costs associated with recurring maintenance training efforts on the UFSM 1000. This is based on an annual cost of \$x,xxx for each UFSM 1000 site.

Labor Savings — All labor savings described below include a two-month lag.

Function 1 Labor Savings — Consists of workhour savings expected in LDCs 12, 14, and 15:

(1) 485,187 LDC 15 workhours — based on keying avoided at RECs due to a 6.12 percentage point increase in the AFSM 100 accept rate. A 90 percent capture rate was applied to account for productivity differentials that exist from site to site and other factors that can influence a site's ability to capture savings.

(2) 297,007 LDC 12/14 workhours — Based on UFSM 1000 machine operator or manual flat sorting workhours avoided due to a reduction in the volume of mail that must be sorted manually or keyed by the machine operator. This savings is based on a 4.13 percentage point accept rate increase on the UFSM 1000. A 90 percent capture rate was applied to account for productivity differentials that exist from site to site and other factors that can influence a site's ability to capture savings.

Exhibit 2-3 (p. 13)

Sample DAR — Site-Specific Equipment Project

Exhibit 2
Description of Cash Flow Line Items
(continued)

(3) 445,234 LDC 14 workhours — Based on manual flat sorting work eliminated due to lower OCR error rates on both machines. Savings are included for a 0.7 percentage point reduction in the AFSM 100 error rates and a 0.6 percentage point reduction in the UFSM 1000 error rate. A 50 percent capture rate was applied to account for productivity differentials that exist from site to site and other factors that can influence a site's ability to capture savings.

Function 2 Labor Savings — Consists of a 39,654 work hour reduction in LDC 21. The savings are based on in-office carrier work eliminated due to lower OCR error rates on the AFSM 100. As error rates go down, more mail pieces will be sorted correctly and thus fewer mail pieces will need to be sorted by a carrier. Savings are included for a 0.7 percentage point reduction in AFSM 100 error rates. A 10 percent capture rate was applied because these savings are widely spread and will only be capturable by carriers that handle a large amount of AFSM 100 mail. No carrier savings were included for the UFSM 1000 because their magnitude is small and would be extremely difficult to capture.

Function 4 Labor Savings — Includes a 105,430 work hour reduction in LDCs 43/44. These savings are based on clerk workhours eliminated at delivery units due to lower OCR error rates on the AFSM 100 (0.7 percentage point reduction) and the UFSM 1000 (0.6 percentage point reduction). A 50 percent capture rate was applied to account for productivity differentials that exist from site to site and other factors that can influence a site's ability to capture savings.

Exhibit 2-3 (p. 14)

Sample DAR — Site-Specific Equipment Project

**Exhibit 3
Major Assumptions**

Volumes

- Total Candidate Volume is 32.97 billion pieces per year (FY 2004)

Candidate AFSM 100 Volume	28.97 billion pieces per year
Candidate UFSM 1000 Volume	4.00 billion pieces per year

- Annual Volume Growth is expected to remain steady (no inflation/deflation)

Savings Assumptions

- AFSM 100 REC Baseline (pre-FRIP2) Workhours (includes breaks, training, etc.): 720,470 workhours
- UFSM 1000 Auto Productivity: 1,544–1,615 pieces/work hour (depending on operation)
- Manual Flat Productivity (Plant): 500 pieces/work hour
- Manual Flat Productivity (Delivery Unit): 1,006 pieces/work hour
- Carrier Productivity: 480 pieces/work hour
- AFSM 100 OCR acceptance rate increases reduce keying workhours at REC sites; OCR error rate reductions reduce manual flat sorting and in-office carrier workhours
- UFSM 1000 OCR acceptance rate increases reduce machine operator/manual flat sorting workhours at plants and delivery units; OCR error rate reductions decrease manual flat sorting workhours
- No supervision savings are included
- Savings capture rates:

AFSM 100 OCR Acceptance Rate Increases (REC keying) & UFSM 1000 OCR Acceptance Rate Increases (manual sorting or keying on UFSM 1000)	90%
AFSM 100/UFSM 1000 OCR Error Rate Reductions (manual flat sorting)	50%
AFSM 100 OCR Error Rate Reductions (carrier)	10%
UFSM 1000 OCR Error Rate Reductions (carrier)	0%

- Savings begin 2 months after deployment

System Performance Improvement Assumptions

Assumption	Cash Flow Scenario
AFSM 100 OCR Acceptance Rate Increase	6.12%
UFSM 1000 OCR Acceptance Rate Increase	4.13%
AFSM 100 Error Rate Reduction	0.7%
UFSM 1000 Error Rate Reduction	0.6%
Return on Investment	26.3%

Exhibit 2-3 (p. 15)

Sample DAR — Site-Specific Equipment Project

**Exhibit 3
Major Assumptions
(continued)**

Economic Factors (FY 2005)

REC 30/70 composite labor rate	\$21.10 per hour
Mail Processor/Dist. Clerk Level 5 labor rate	\$37.29 per hour
City Carrier labor rate (CC-01)	\$37.50 per hour
Maintenance Clerk Level 7	\$39.75 per hour
Maintenance ET-10/ET-11 labor rates	\$45.59/\$46.94 per hour
Postal labor escalation factor	2.7% per year
All other costs escalation factor	1.6% per year
Cost of capital	5.0%
Generative project risk factor	4.5%
Total discount rate used for present value calculations	9.5%

Exhibit 2-3 (p. 16)

Sample DAR — Site-Specific Equipment Project

**Exhibit 4
Sensitivity Analysis**

**Savings Capture Rate Variations to Expected DAR Scenario
Capture Rates (%)**

Scenario	AFSM 100 Read Rate Savings – LDC 15	AFSM 100 Read Rate Savings – LDC 12/14	AFSM 100 Error Rate Savings – LDC 14/43/44	AFSM 100 Error Rate Savings – LDC 21	UFSM 1000 Error Rate Savings – LDC 14	UFSM 1000 Error Rate Savings – LDC 21	Estimated Return on Investment
DAR	90	90	50	10	50	0	26.3
Scenario #1	90	90	0	0	0	0	-0.2
Scenario #2	71	71	50	0	50	0	20.0
Scenario #3	80	80	50	10	50	0	23.8
Scenario #4	70	70	50	10	50	0	21.3
Scenario #5	65	65	50	10	50	0	20.0

Notes:

Scenario #1 — Eliminated all error rate reduction savings.

Scenario #5 — Left error rate reduction savings at expected scenario amounts but reduced read rate savings (for both machine types) from 90 percent to 65 percent.

Flat Volume Variations

(applied to both the AFSM 100 and UFSM 1000)

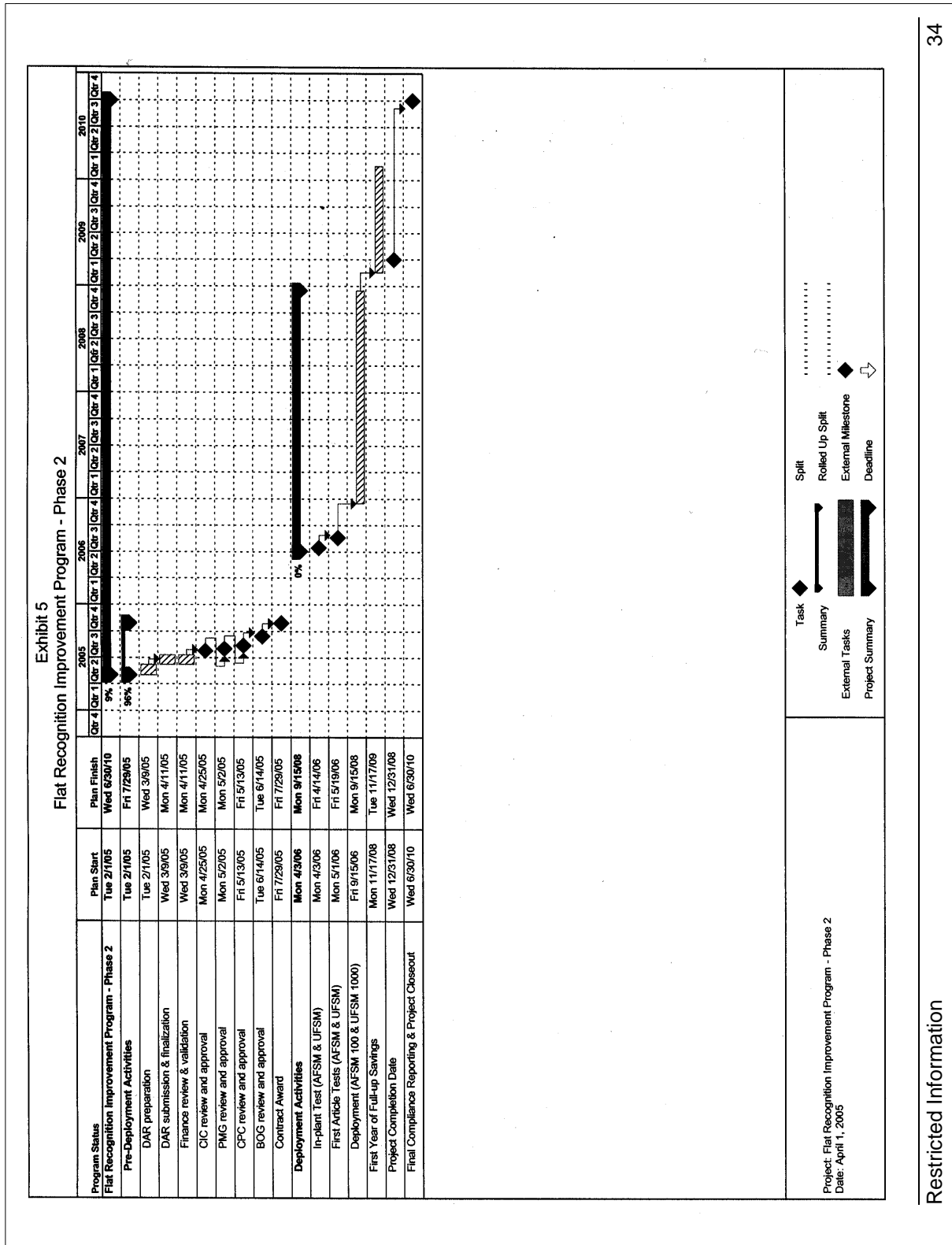
	% Flat Volumes	Cash Flow ROI
	100.0	26.3
Scenario #6	90.0	21.7
Scenario #7	86.0	19.9
Scenario #8	80.0	17.0

**Carrier Savings Variations
Scenario #9**

Cash Flow Scenario	Return on Investment (%)	
	With LDC 21 Savings	Without LDC 21 Savings
DAR Cash Flow	26.3	24.7

Exhibit 2-3 (p. 17)

Sample DAR — Site-Specific Equipment Project



3 DAR Backup Documentation

3-1 About This Chapter

This chapter describes the minimum backup documentation that the sponsor must submit with the DAR for a major equipment project.

3-2 Purpose

The backup documentation is attached to the DAR when it goes to Finance for validation. The backup documentation provides support for the data and economic assumptions presented in the DAR. Upon request, the backup documentation may be supplied to functions other than Finance for review. The backup must provide detailed supplemental information sufficient to accomplish the following:

- a. Support the recommended alternative.
- b. Show how the numbers in the DAR were derived.
- c. Provide financial information such as supporting data for numbers in cash flows and baseline costs.
- d. Provide a basis for validating the DAR, carrying out the compliance requirements, and supporting future audits or cost studies.

The complexity of the project determines the level of detail required in the DAR backup documentation.

3-3 Format

The DAR backup documentation for any project that requires Headquarters approval must meet the following guidelines:

- a. All materials must be legible (preferably typed or word-processed).
- b. All pages must measure 8-1/2 by 11 inches. You may print the DAR backup documentation either single-sided or double-sided.
- c. To allow for easy duplication, place pages in a three-ring binder with tabbed dividers between sections. Do not bind pages.

- d. Include a cover page similar to that used for the DAR identifies the material as “DAR Backup Documentation” with the same project name and date as the DAR.
- e. Provide a table of contents that shows the title and beginning and ending page number of each major section of backup (e.g., A-1–A-6; B-1–B-3).
- f. Include a title page at the beginning of each major section of backup.
- g. Number all pages.
- h. Date all pages. Show the date of revision on replacement pages.
- i. Highlight the data actually used in the analysis, if appropriate.

3-4 Required Components

At a minimum the DAR backup for a major equipment project includes the following (see Exhibit 3-1 for further guidance):

- a. Cover page.
- b. Table of contents.
- c. Cash flow analysis:
 - (1) Investments.
 - (2) Operating variances.
- d. Other backup documentation:
 - (1) Assumptions.
 - (2) Functional and field reviews.
 - (3) Risk analysis matrix.

3-4.1 Cash Flow Analysis

The DAR backup must include supporting documentation for each cash flow line item.

3-4.1.1 Investments

Itemize and express all capital and expense investments in terms of unit costs. The backup must include the signature of the subject matter expert (SME) who provides the estimates.

Normally all one-time (or nonrecurring) expenditures are capitalized for a single project, including one-time contract labor and the initial supply of spare parts. Certain exceptions to this rule apply:

- a. One-time labor by Postal Service employees to manage projects is categorized as an operating variance.
- b. Depot-stocked spare parts that are kept on hand as replacements are categorized as an expense investment.

For further clarification of capital and expense classifications, refer to the appropriate accounting manuals or verify the classification with Corporate Accounting.

3-4.1.2 **Operating Variances**

Operating variances include any changes from the baseline or current situation (i.e., all incremental costs and savings directly related to the project). Although there may be some one-time costs, operating variances are generally recurring costs (e.g., recurring spare parts costs). Backup documentation for both baseline and proposed costs is required for each variance in the cash flow. The baseline includes impacts resulting from official Postal Service volume forecasts, labor rates, and scenarios taken from official sources, and other known events which will impact the baseline in the future. Operating variances are categorized by type (e.g., labor costs, start-up costs, one-time disposal costs for excess equipment, if appropriate, training costs, telecommunications, maintenance costs, utilities, recurring spare parts, and rent).

You must support all source numbers with appropriate hard-copy documentation. For example:

- a. Official Postal Service reports.
- b. Signed written estimates from internal or external sources.
- c. Telecommunication and utility bills.
- d. Excerpts from leases pertinent to the analysis.
- e. Written documentation from SMEs.
- f. Summary of any available equipment test results.

3-4.2 **Other Backup Documentation**

3-4.2.1 **Assumptions**

The DAR backup package must include supporting documentation for each assumption made in calculating operating variances or other analyses in the DAR. This includes the assumptions used to project labor rates, productivity levels, machine performance, and volume projections, as well as a summary of any available equipment and test data and results.

3-4.2.2 **Risk Documentation**

The following sections identify the back-up documentation requirements associated with risk identification and analysis (see Handbook F-66 for additional risk-related requirements).

3-4.2.2.1 **Risk Identification Matrix**

Provide a risk identification matrix (RIM), which is a sample list of categorized risk elements. It's important to understand that this list is not all-inclusive and that risk elements may appear in more than one risk category (see exhibit 3-2).

3-4.2.2.2 Risk Analysis Matrix

After the SMEs have categorized the selected risk elements, they then rate each risk element. The rating is based upon the potential impact on the success of the program. The SMEs repeat this process until all the risk elements selected have been evaluated. The rating of the risk element is an estimate of the likelihood of the risk element actually happening and impact of the risk element being evaluated would have on the project if the risk was to materialize. After the risk elements in each of the three categories are evaluated, composite rating is determined (e.g., low, medium, or high). This activity is repeated until all the elements within the three risk categories (e.g., operational, technical, and integration) are examined (see exhibit 3-3). The risk analysis matrix is a required element in the backup DAR documentation.

3-4.2.3 Budget Impact

The budget impact must include a separate worksheet for each finance number (facility or area) affected by the project that identifies areas of potential budget impact by fiscal year, line item, and labor distribution code (LDC) for the recommended alternative. Data is required only for the first year following final deployment unless costs or savings from the project are expected to be realized incrementally.

3-4.2.4 Functional and Field Reviews

Functional and field organizations that are directly affected by or that may influence the project must review and concur with the concepts, assumptions, and operational and budgetary impacts presented in the DAR. The affected areas must concur with site-specific savings or, in the case of non site-specific projects, with the allocation of workhour savings. The sponsor must respond in writing to any issues raised during the functional reviews, and all issues must be resolved. Copies of all concurrences as well as follow-up correspondence are included as backup (see exhibit 3-4 for a sample DAR concurrence sheet).

3-4.2.5 Other

You must include additional backup documentation as applicable (e.g., an analysis of other alternatives, requirements call, sensitivity analysis, NPV comparison, risk analysis, management instructions, or other references).

Exhibit 3-1

Required Backup Components

Backup Component	Required Contents
Operational, Hardware, and Space Requirements	Authoritative data showing the rationale for unit quantities and space requirements. Include diagrams and volume data to support the proposed operational plan.
Investment Cost Estimates (Capital and Expense)	Signed documentation from authoritative source (e.g., Purchasing or the program manager) supporting each line of capital and expense investments in the cash flow.
Operating Variances	Documentation of all assumptions, rationale, and methods used to calculate each line item in the cash flow. If computer models were used to calculate workhours or savings, include both hard copy and diskettes.
List of Assumptions	Explanation of the rationale for all assumptions used in arriving at values cited in the DAR.
Economic Analysis (Cash Flow)	DAR cash flow, including a description of each line item. Make all values and assumptions traceable to other sections of the backup documentation.
Acquisition and Deployment Plan	A Gantt chart or narrative description of acquisition and deployment major milestones plus a narrative describing how and when the proposed procurement will be completed.
Risk Analysis	Shows the elements of risk associated with the project, the evaluation of that risk, and the risk analysis matrix.
Sensitivity Analysis	Modified DAR cash flows and list of assumptions for each scenario. Describe the rationale for each scenario and the detail of any risk-type analyses, if applicable.
Complement Impact Analysis and Nonpersonnel Cost Impact	Hard copies of worksheets used to compute changes expected in staffing and nonpersonnel costs. Make all calculations traceable to the project cash flow(s) shown in the DAR.
Budget Impact	Spreadsheet showing impact of project on workhours and dollars.
Financial Impact Statements: Net Income Statement	Hard copies and files on disk for PC worksheets used to calculate the change in net income. Must be traceable to the DAR cash flow.
Concurrences	Copies of all comment memos and functional concurrences, as well as responses showing the resolution of identified problems.
Applicable Documents	Applicable policy letters, standards, and other documents.
Software Index	List of PC software files used to develop or support the DAR. Include copies of files on diskettes as part of the backup package.

Exhibit 3-2

Risk Identification Matrix

Risk Identification Matrix (RIM)

Technical <i>Can We Make It?</i>	Maturity	Production	Vendor Experience
	Support	System Interfaces	Vendor
	Skills Resources	Scope	Relationship/Viability
	Training	Complexity	Obsolescence
	Vendor Capacity	Security	Vendor Resources
			Quality
Operational <i>Will It Work?</i>	Network Integration	Volume Projections	Quality (FAT/CAT)
	Scope/Magnitude	Transactions Projections	Savings Capture
	System Interfaces	Training Development	Maintenance Support
	Management Experience	Resources	Performance
Integration <i>Can We Use It?</i>	Stakeholder Acceptance	Network Integration	External Variables
	Customer Acceptance	User Acceptance	Communications
	Scope	System Interfaces	Training Delivery
	Complexity	Savings Capture	Procurement
	Experience	Resources	Support
	Quality Assurance	Installation	Maintenance Support
	Software	Transportation	Site Preparation

Exhibit 3-3
Risk Analysis Matrix

Technological — <i>Can We Make It?</i>		Cost Rating	Benefits Rating	Schedule Rating
Skills/Resources				
Training				
Vendor Capacity				
Subtotal Rating				

Category Rating

Operational — <i>Will It Work?</i>		Cost Rating	Benefits Rating	Schedule Rating
Scope Magnitude				
Management Experience				
Subtotal Rating				

Category Rating

Integration — <i>Can We Use It?</i>		Cost Rating	Benefits Rating	Schedule Rating
Stakeholder Acceptance				
Customer Acceptance				
Network Integration				
Complexity				
Subtotal Rating				

Category Rating

**Total Project
 Risk Level**

Exhibit 3-4 (p. 1)

Sample DAR Concurrence Sheet

Decision Analysis Report – Headquarters Functional and Field Review

Copies of all Headquarters and field review concurrence sheets and any responses to issues raised are included in the final Decision Analysis Report (DAR) as part of the backup documentation. Any issues resolution meeting may be required for some projects before final validation, depending on the criticality of the issue(s). Capital and Program Evaluation, Finance, depending upon the nature of the proposed investment, will determine modifications to these concurrence requirements.

USPS Headquarters Distribution

CONCURRENCE FORM AND DECISION ANALYSIS REPORT

Corporate Accounting Vince De Vito, w/cc: Kevin McNamara
 Chief Marketing Officer
 Product Development Nicholas F. Barranca
 Chief Technology Officer
 Information Technology Debbie Judy coordinates (R. Otto concurrence)
 Employee Development William A. Stefl, w/cc: Bill Koukus
 General Counsel William A. Campbell
 Facilities Projects Only Richard C. Jensen, w/cc: Susan Koetting
 Intelligent Mail and Address Quality Jeff Freeman coordinates (C. Bravo concurrence)
 Operations Manager, Field Operations Requirements Planning¹
 Delivery and Retail Amy Wong coordinates (W. Galligan concurrence)
 Network Operations Management . . . Michael J. Cotter coordinates (P. Vogel concurrence)
 Labor Relations John Dockins coordinates (D. Tulino concurrence)
 Engineering Tina Powell coordinates (W. O’Tormey concurrence)
 Facilities William Aspinwall coordinates (Facilities concurrence)
 Public Affairs and Communication Azeezaly S. Jaffer, w/cc: Joyce Carrier
 Supply Management A. Keith Strange, w/cc: Paula Garner
 Strategic Initiatives Kathleen Cavanaugh

¹ Send requests for concurrence from this functional area directly to Ann Wright, manager of Field Operations Requirements/Planning, who coordinates Operations functional reviews and concurrence. Operations submits the signed concurrence from the senior vice president of Operations with separate signed concurrences from the vice president of Delivery and Retail, vice president of Network Operations Management, vice president of Labor Relations, vice president of Engineering, and vice president of Facilities.

DECISION ANALYSIS REPORT ONLY (no comments required)

Lawrence E. Maxwell Assistant Chief Inspector, Investigations and Security
 Colleen McAntee Office of Inspector General

Standard USPS Field Distribution

REVIEW CONCURRENCE FORM AND DECISION ANALYSIS REPORT

For DARs that have field budget and/or field operational impacts, the area vice presidents must sign their concurrence with the DAR. Copies of the signed field concurrence forms and budget impact summaries must be included in the DAR backup documentation.

For site-specific equipment DARs, the plant/facility managers must sign their concurrence with the operational and/or budget impacts of the DAR. The site-specific impacts and requests for concurrence must be transmitted through the respective area offices. Copies of the signed field concurrence forms and budget impact summaries must be included in the DAR Backup.

Exhibit 3-4 (p. 2)

Sample DAR Concurrence Sheet (continued)**Notes:**

No comments are requested from those individuals designated to receive only a Decision Analysis Report. All other functional areas must submit a signed review concurrence form to the sponsoring organization within 3 weeks unless otherwise specified by the sponsor or Capital and Program Evaluation.

Copies of all signed review concurrence forms and any supporting documentation are sent to the manager of Program Evaluation, Finance, for inclusion in the DAR backup documentation. If the reviewing organization has issues with the proposed investment, the sponsoring organization must respond to those issues in writing or by e-mail. Sponsors must follow this procedure even if the reviewer checks the OK to Proceed box. The sponsor must send a copy of the response to the manager of Program Evaluation for inclusion in the DAR backup documentation.

Contact Program Evaluation, Finance, for updated the most current list of names and positions of stakeholders that will receive concurrence forms and DARs.

Exhibit 3-5

Sample Decision Analysis Report Review and Concurrence Form

**Operations
Headquarters Review**

DAR: _____

In accordance with the DAR Capital Investment Process.

No Pending Issues: OK to Proceed	Issues as noted below: OK to Proceed	Issues as noted below: DO NOT PROCEED
--	--	---

- | | | | |
|-----|-----|-----|--|
| [] | [] | [] | Operating plans described in the DAR are consistent with Operations policies and programs. |
| [] | [] | [] | Operating plans described in DAR will meet present service commitments and targeted service performance scores. |
| [] | [] | [] | Risks identified in DAR accurately reflect Headquarters Operations and concerns are rated appropriately. |
| [] | [] | [] | Program stated outcome supports the <i>Strategic Transformation Plan</i>. |
| [] | [] | [] | Other issues to be raised: |

Comments:

< Signature Below >

Reviewed by Operations:

< Printed Name Goes Here >	Date
Senior Vice President, Operations	

Please return the completed review to the sponsoring organization.

Requested response time is 3 weeks unless otherwise noted.

4 Review and Approval Process

4-1 About This Chapter

All major equipment projects are subject to the Headquarters review and approval process described in this chapter. Requests to modify an approved project must also be reviewed and approved following these procedures.

A project may be stopped or sent back to the sponsor for further work at any point in the review and approval process.

4-2 Purpose

The purpose of the review and approval process is to ensure the following:

- a. The project is consistent with the strategies of the *Strategic Transformation Plan* and the Five-Year Strategic Plan.
- b. The project is prioritized in the Five-Year Capital Investment Plan and planned commitments are in the appropriate years.
- c. The project is economically justified (if applicable) and properly analyzed (that is, all viable alternatives have been considered, the impact of the investment is properly evaluated, and the backup documentation adequately supports the investment).
- d. Appropriate concurrences for major assumptions have been obtained.
- e. If not economically justified, the project is properly justified based on customer service, employee, safety, or other reasons.

4-3 Review Steps

The sponsor coordinates the Headquarters review and approval process for major equipment projects (see exhibit 4-1). Field-initiated projects are subject to a financial assessment, review by the area Capital Investment Committee (CIC), and approval by the area vice president before the project may be forwarded to Headquarters for review, validation, and final approval (see Handbook F-66C).

Note: See Handbook F-66, exhibits 2-1, 2-2, and 2-3, for tables showing the approval authority and process flow charts.

4-3.1 **Functional Review**

The Headquarters review process begins when the sponsor forwards the DAR and backup (including an assumptions list) to Finance to begin the validation process. At the same time, the sponsor sends the DAR to applicable functions for review and concurrence with the concept and projected costs and savings. Upon request backup documentation may be supplied to functions other than Finance for review. Depending on the project, the following functions may be affected:

- a. Corporate Accounting.
- b. Operations Support.
- c. Purchasing and Materials.
- d. Information Systems.
- e. General Counsel.
- f. Employee Development.
- g. Labor Relations.
- h. Human Resources.
- i. Retail, Marketing.
- j. Facilities.
- k. Workforce Planning and Service Management.
- l. Inspection Service.
- m. Office of Inspector General.
- n. Engineering.

Sometimes a review meeting may be necessary to resolve complex issues. All issues that these functions raise must be adequately resolved before the project can be validated and sent forward for approval.

4-3.2 **Concurrence of Vice Presidents**

The sponsor forwards the results of the staff review to the applicable vice presidents to ensure the following:

- a. Confirmation of the need, priority, and assumptions.
- b. Concurrence with the achievability of operating costs and savings and resulting budget impacts and the volume and revenue projections.
- c. Review of the inter-functional impact.
- d. Consistency with overall operational strategies and the implementation and tracking plan.

Include the signed concurrence of the applicable vice presidents as part of the DAR backup documentation.

The sponsor revises the DAR and backup documentation as necessary to reflect any recommended changes. When major changes are required, the sponsor changes the date on the DAR cover page and obtains a new signature page.

4-3.3 **Approval of Sponsoring Vice President**

After the DAR has been revised, the sponsoring vice president signs the DAR and sends it to Finance for final validation (see chapter 5 for validation requirements).

4-3.4 **Validation Completed**

Once the validation is completed, Capital and Program Evaluation sends the validation memo to the sponsoring vice president, who can approve the DAR if it is within the vice president's approval authority (see Handbook F-66, exhibit 2-1). If the DAR approval amount investment is greater than \$7.5 million, Capital and Program Evaluation forwards the DAR, validation memo, and executive summary to the Headquarters CIC. (See Handbook F-66, for approval authority thresholds.)

4-3.5 **Vice President Review and Final Approval**

Following validation, Capital and Program Evaluation sends the validation memos for major equipment projects to the sponsoring vice president who can approve the DAR, if it is within the vice president's approval authority (see Handbook F-66, exhibit 2-1). If the DAR is approved, the sponsoring vice president signs the briefing sheet that is prepared by the sponsor's staff. If the DAR is not within the approval authority of the sponsoring vice president, the project must follow the capital investment approval process that includes higher-level review, recommendation and/or approvals (see exhibit 4-1).

4-3.6 **CIC Review and Approval**

Upon final validation, Capital and Program Evaluation submits major equipment projects that require approval above the vice president level to the Headquarters CIC. Approximately 1 week before the meeting, Capital and Program Evaluation sends the CIC members for their review the validation memo and executive summary prepared by Finance and the DAR. The sponsor prepares a presentation for the CIC.

If the CIC votes to recommend approval of the project, the sponsoring vice president presents the DAR and briefing sheet prepared by the sponsor's staff to the postmaster general/chief executive officer (PMG/CEO). The PMG/CEO signs the briefing sheet to approve the DAR if it is within the PMG/CEO's approval authority (see Handbook F-66, exhibit 2-1). If the DAR requires Board of Governors (BOG) approval, the chief financial officer and senior vice president prepares a document outlining any issues raised at the CIC meeting and forwards the issues document, DAR, validation memo, executive summary, and the presentation prepared by the sponsor to the Capital Project Committee (CPC), which is a subcommittee of the Board of Governors for their review.

4-3.7 **Postmaster General Review and Approval**

The sponsor schedules a meeting with the PMG/CEO. Before the meeting, the PMG receives for review the DAR, validation memo, executive summary, and CIC issues sheet.

If a project is within the delegated approval level for the PMG/CEO's final approval, the PMG/CEO signs the executive briefing sheet prepared by the sponsor. Projects to be approved by the Board of Governors (BOG) are forwarded to the Capital Projects Committee (CPC), which is a subcommittee of the Board of Governors.

4-3.8 **Capital Projects Committee Review**

Three weeks before its meeting, the CPC receives for review the DAR, validation memo, executive summary, and a CPC briefing sheet (the sponsor prepares the "DAR Financial Impact Template," which is the Financial Impact Statement, which is only used for the budget and not presented) and an issues sheet outlining issues raised during any previous CPC review. The CPC discusses the project with the sponsor and decides whether to present its findings and recommendation to the full Board of Governors or send the project back for further work.

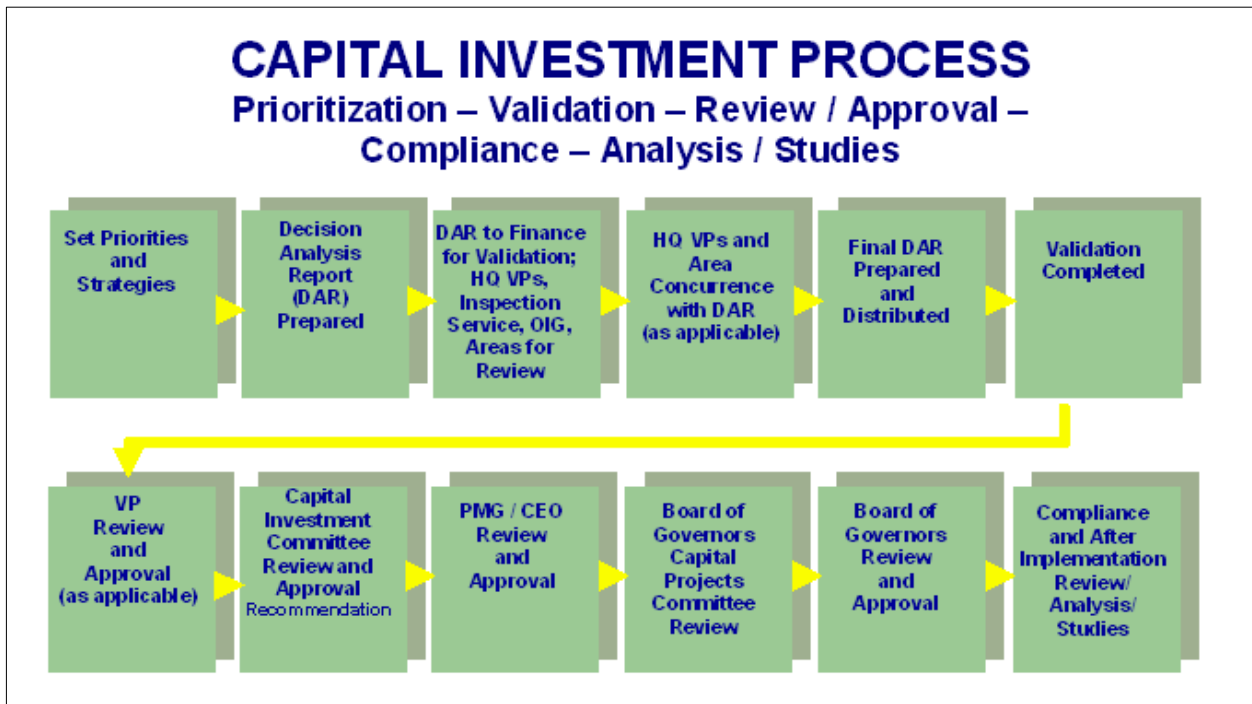
4-3.9 **Board of Governors**

Four weeks before the BOG meeting, the members of the BOG receive for review the DAR, validation memo, an issues sheet, and a briefing sheet prepared by the sponsor. The CPC chair reports the findings and recommendation of the CPC, and the Board considers the project for approval. Minutes of BOG meetings are used to document project approval.

4-4 **Document Retention**

The final approval authority returns the approved DAR (or DAR Modification Request) to Finance, which keeps the original file documentation. The sponsor retains a copy of the approved DAR and the complete backup for the project.

Exhibit 4-1
Headquarters Review and Approval Process



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5 Validation

5-1 About This Chapter

The vice president and controller of Finance must validate the DAR for all major equipment projects (except R&D efforts) before final approval. DAR Modification Requests for these projects must also be validated. Although a formal validation is not required for R&D projects, Finance must issue a review letter.

5-2 Purpose

A *validation* is an independent verification of the accuracy and integrity of the documented arguments presented in support of the project. For an equipment project, the vice president and controller of Finance validates the site-specific models (if applicable) or the assumptions of the savings model non site-specific generative equipment projects, confirms the business decision, and ensures that the project is consistent with corporate strategies.

The validation of a DAR or DAR Modification Request provides the following assurances to the approving officials:

- a. The DAR and backup documentation is in full compliance with current investment policies and procedures, and it supports the overall corporate investment decision-making process.
- b. The magnitude and accuracy of the values in the DAR and that the project is a sound business decision.
- c. The information (e.g., timing, investments, savings, assumptions, and analysis) presented in the DAR and its supporting documentation is reasonable, accurate, logical, valid, and auditable.
- d. All viable, reasonable solutions and alternatives to the problem were given adequate consideration.

If the sponsor cannot give any of the assurances then the vice president and controller must raise these issues during the validation process.

5-3 Responsibility

The vice president and controller of Finance completes the validation of a DAR at the Headquarters level. When Finance is the sponsoring organization, the validation function must remain distinct and separate from DAR preparation.

Capital and Program Evaluation, Finance, also performs the following validation-related activities:

- a. Provides technical guidance for the economic analysis of project alternatives.
- b. Participates in the Headquarters review process and issues comments on preliminary and final DARs.
- c. Reviews Compliance Reports and evaluates DAR Modification Requests for approved projects.
- d. Coordinates reviews among finance functions.

5-4 Time Frame

The validation must be completed before senior management or the Headquarters CIC (as applicable) considers the DAR for approval.

5-5 Procedures

Exhibit 5-1 provides a list of validation tasks to help the validator complete a sound, logical analysis of major equipment projects. Some items may not apply to all project proposals; conversely, it may be appropriate to consider questions and concerns not found on the list. In particular, the validator ensures that any discrepancies or questions arising from the functional reviews have been resolved.

5-6 Validation Documentation

The vice president and controller of Finance prepares a validation memorandum (or review letter for an R&D project) and executive summary that summarize the DAR recommendation. If the validation does not fully confirm the economic analysis, specific exceptions are noted. A sample validation memorandum and executive summary for an equipment project are included as exhibit 5-2.

Exhibit 5-1

Validation Process for Major Equipment Projects

Objective	Validator's Task
Edit craft DARs	Guide sponsor on format and content issues. Provide written comments to the sponsor. Mark up DAR with suggested revisions.
Identify and help resolve DAR issues	Analyze and report on issues requiring resolution. Work with sponsor to resolve issues.
Verify requirements	Review sponsor's data and methodology. Verify accuracy of requirements analysis. Ensure that metrics that measure equipment and program performance are included, as well as the source of the data. Ensure functional management review, comment, and concurrence. Review backup documentation.
Verify investment costs	Review sponsor's source data and methodology. Review estimates for accuracy and completeness. Ensure concurrence by Purchasing and Acquisition Management, Engineering. Review backup documentation.
Verify operating cost variances	Review methodology and analysis of operating variances. Ensure listing of all significant assumptions. Report issues requiring management discussion. Review backup documentation.
Verify cash flows and economic analysis	Ensure proper time phasing of cash flows. Ensure proper escalation, labor, and discount rates. Ensure accuracy of ROI and NPV calculations.
Review assumptions, risk analysis, and sensitivity analysis	Review sensitivity of ROI and NPV to key assumptions. Review Risk Analysis Matrix. Report findings and develop exhibits as required.
Analyze financial impact	Analyze and report complement impacts by fiscal year. Analyze and report profit and loss (P&L). Analyze and report impact on operating budget. Create exhibits for internal communication.
Edit final DAR	Verify accuracy of final DAR values and cash flows. Coordinate revisions before final publication.
Compile final DAR backup file	Organize and index the official backup files including Headquarters and field concurrences and comments, significant correspondence, working papers, and PC files.
Prepare validation documents	Write validation memo and executive summary.

Exhibit 5-2 (p. 1)

Sample Validation Memo and Executive Summary

May 29, 2004

<Name of Vice President, Engineering>

SUBJECT: 46 Small Parcel and Bundle Sorters Decision Analysis Report (DAR)

The May 28, 2004, DAR for the purchase of 46 small parcel and bundle sorters (SPBSs) has been reviewed and validated.

The DAR requests a total investment of \$46,474,000, including a capital investment of \$46,400,000 and an expense investment of \$74,000, for the purchase of 46 SPBS machines. Forty-two of the machines are economically justified, based on volume and productivity at each deployment site. The remaining four machines will be used to meet unexpected needs, and no savings have been added to the cash flow for these machines. Pending the Board of Governors' approval, scheduled deployment of this equipment will begin in September 2005 and conclude in August 2006.

The 10-year operating variance for the 46 machines is \$233,984,000 and includes savings that will result from mechanization of the manual operations. In the year 2007, the first full year of operation, the projected net operating savings per assigned machine is \$600,500. Each machine will save an equivalent of 11 workyears by moving mail from manual to mechanized processing.

The documentation, analysis, and anticipated results presented in the DAR have been validated. The net present value for the 46 machines, when discounted at 11.8 percent, is \$66,646,000, and the return on investment is 40.3 percent. The results of the most recent cost study for SPBSs have been addressed in the cash flow analysis. The project is economically justified and exceeds the 20 percent threshold for major equipment projects.

The success of the program will be evaluated based on several performance metrics, including average daily volume processed on each machine, and reductions in the mail processing workhours associated with in-direct processing activities. This project is consistent with the *Transformation Plan's* strategic focus for processing improvements and is included in the operating and capital investment plans. The project must be submitted to the Board of Governors for final approval.

<Signature>

Vice President, Controller

Exhibit 5-2 (p. 2)

Sample Validation Memo and Executive Summary**EXECUTIVE SUMMARY****Subject**

46 Small Parcel and Bundle Sorters (SPBSs)

Background

The SPBS, an operator-paced machine, provides mechanized sorting of small parcels, bundles of mail, Priority Mail, and irregular Parcel Post items. The machine has either four, five, or six induction stations and sorts approximately 700 to 1,000 pieces per hour per induction station.

Based upon five previous purchases, 232 SPBSs are currently deployed (or scheduled for deployment) in the field. The initial equipment award (102 SPBSs) completed delivery in December 1989; three ensuing awards (53, 23, and 7 machines respectively) completed deployment in December 1994. Currently, 47 units from the fifth award are now being deployed with completion scheduled for November 1997. The DAR indicates that the deployment of these machines results in higher national productivity with fewer handlings than the manual operations that are being replaced.

A Phase II SPBS Cost Study of 85 machines prepared in October 1995 highlighted four issues that negatively impacted the ROI in the areas of productivity, labor, allied labor, and additional supervision. These findings have been addressed in this DAR.

Solution/Justification

A low-cost alternative to the SPBS, the linear integrated package sorter (LIPS), was determined to be not viable because of its inability to process a wide range of mail pieces and its increased space requirements. As a result of an increased demand for SPBSs, a requirements call was initiated in January 2004. Forty-two sites were able to economically justify installation of a SPBS. Four additional machines are requested to address unexpected needs. The DAR requests capital investment authorization of \$46,400,000 and expense funding of \$74,000 for the purchase of 46 SPBSs.

The DAR projects workhour savings of \$25,221,000 in 2000, the first full year of operation. This equates to an average of 11 full-time equivalent positions (an average of 19,630 clerk-mail handler workhours) saved per machine.

Project Objectives

This project is economically justified and will:

1. Improve productivity.
2. Reduce handlings.
3. Improve management control.

Exhibit 5-2 (p. 3)

Sample Validation Memo and Executive Summary**Financial Summary**

10-Year Operating Period	
(\$ in thousands)	
Capital Investment	\$ 46,400
Expense Investment	\$ <u>74</u>
Total Investment	\$ 46,474
10-Year Operating Variance	\$ 233,984
Net Present Value Discounted at 11.8%	\$ 66,646
Return on Investment	40.3%

Requested Action

Authorization is requested for total funding of \$46,474,000 (including \$46,400,000 capital and \$74,000 expense funding) for the purchase of 46 small parcel and bundle sorters.

6 DAR Compliance Reports

6-1 About This Chapter

This chapter sets forth the requirements the sponsoring organization must follow for tracking DAR-related costs before, during, and after implementation of any investment project. The sponsor must report this cost data, as well as other specified metrics in the DAR quarterly in the proper DAR Compliance Report format from the time a project is approved until 18 months after the project is completed.

6-2 Purpose

The program tracking for the DAR is provided by the compliance and cost study procedures. These are intended to provide the following assurances:

- a. Projects are implemented as stated in the approved DAR.
- b. Metrics (indicators and methods) are reviewed on an ongoing basis to evaluate achieved benefits and savings as identified in the DAR.
- c. Corrective action is taken as necessary. The metrics associated with these actions must be tracked and reported.
- d. Any operational or capital investment modification from the approved DAR is adequately documented, justified, and approved.
- e. Adequate cost data are captured before and after deployment or move-in so that compliance reports and the cost study can be generated.

6-3 Responsibility

At the time of project approval, Capital and Program Evaluation provides the sponsor with copies of the final DAR and all supporting documentation by. The sponsor and program manager are responsible for reviewing the approved DAR and managing the deployment in conformance with the DAR and any subsequently approved modifications. For more detailed compliance reporting requirements refer to Handbook F-66, chapter 7.

6-4 Time Frame

The sponsor must prepare a Compliance Report each postal quarter from the time a DAR receives final approval until 18 months after the project completion date. The reported information must be current as of the close of each quarter (i.e., December, March, July, September) and must be submitted 10 business days after the close of the quarter.

6-5 Compliance Report Format

The DAR compliance report input form and the *Investment Highlights* report input form have been consolidated. That is, both board approved and non-Board approved programs will use the same input form. For additional guidance, a completed sample form as well as a blank input form are provided in Handbook F-66 exhibit 7-1.

Note: Facilities projects and field-approved projects will use the compliance report input format in the F-66A and the F-66C respectively for non-Board approved programs.

6-6 Review

Finance reviews each Compliance Report submission for accuracy and completeness, analyzes the data provided, evaluates the status of the program and determines whether a DAR Modification Request is necessary. Finance notifies the sponsor in writing if a DAR Modification is required.

6-7 Document Retention

Finance places the original Compliance Report in the master DAR file for future reference and distribution upon request. The sponsor keeps a copy of all Compliance Reports in their project file.

7 DAR Modification Request

7-1 About This Chapter

A DAR Modification Request must be reviewed, validated, and approved before taking action that departs from the approved DAR for a major equipment project. The vice president and controller of Finance must approve exceptions to this policy.

7-2 Purpose

A DAR Modification Request is a request to depart from the approved plan (i.e., the DAR and any previously approved DAR Modification Requests. The DAR Modification Request serves the following purposes:

- a. Controls the flow of funds for the project as set forth in the approved DAR.
- b. Strengthens the sponsor's accountability in complying with the approved facility and operational plans.
- c. Allows managers to adjust for opportunities or problems that arise during the project's life cycle.
- d. Ensures that significant changes to investments and operating variances are properly documented and approved.

You may not use a DAR Modification Request to update the operating variances in the approved DAR to correspond to actual results (such as a change in utility rates, wage rates, or staffing plan). The modification request must be based on an investment change or a significant operating change.

In rare cases, the proposed changes to an approved DAR may be so great that a new DAR and backup documentation may be required.

7-3 Definitions

A DAR modification may be an investment-related or operational change from the approved DAR:

- a. **Investment-related modification** — A proposed change to the approved investment funding contained in the DAR.

- b. **Operational modification** — A significant change that affects the scope of the project, cash flow operating variances, investments, or assumptions upon which a project was justified. The proposed operational change may or may not require additional funds.

7-4 Responsibility

Often the need for a DAR Modification Request is identified when a Compliance Report is prepared. If there is any question whether a DAR Modification Request is required, contact Capital and Program Evaluation, Finance, Headquarters.

The sponsor is responsible for identifying the need, preparing the request, revising the economic analysis and cash flow, and coordinating the necessary approvals. The project sponsor, preparer, and approving officials must sign the request, indicating their agreement with the revised project concepts, assumptions, and operational and budgetary impacts.

7-5 Time Frame

A DAR Modification Request must be submitted on a timely basis (i.e., when a major operational or investment-related change becomes known) and must be approved before the change from the approved plan is initiated.

DAR Modification Requests may be submitted any time during deployment, and they must be submitted within 18 months after full deployment. DAR Modification Requests must be approved before the supporting contracts are signed. Delay of a known operational or investment-related change until after the 18-month time frame has elapsed is a violation of this policy.

7-6 Required Components

You must include the following items in a DAR Modification Request for a major equipment project. The narrative section may not exceed 3 pages.

7-6.1 Cover Page

On the cover page, identify the document as a “DAR MODIFICATION REQUEST” and indicate the name of the project (the same as the originally approved DAR) and the date.

7-6.2 Signature Sheet

Include the same signature lines — preparer, reviewer, sponsor (if applicable), and approving officials — as the signature page of the original DAR. Additional signatures may be required if the request is for additional capital funding that requires the project to be approved at a higher level.

7-6.3 **Background**

Include the following background information:

- a. Amount previously approved.
- b. Final approval date (DAR and any approved DAR Modifications).
- c. Final approval authority (e.g., vice president, PMG/CEO, or Board of Governors).
- d. Project justification (summary of main points from approved DAR).
- e. Update on progress toward deployment of the equipment.

7-6.4 **Problem Definition and Justification**

Describe the proposed change and explain why it should be approved.

7-6.5 **Financial Summary**

Include a table in the format shown, including additional information as appropriate for the specific project:

10-Year Operating Period (\$000)			
	Original DAR or Previously Approved DAR Modification (Final Approval Date)	DAR Modification (Date of Request)	Difference
Investments			
Capital	\$ _____	\$ _____	\$ _____
Expense	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____
Operating Variance	\$ _____	\$ _____	\$ _____
Net Present Value			
Discounted at ___%	\$ _____	\$ _____	\$ _____
Return on Investment	_____%	_____%	_____%

7-6.6 **Recommendation**

Summarize the proposed change and make a formal request to modify the original plan, increase the authorized funding, or both.

7-6.7 **Exhibits**

If the proposed change affects the cash flow, include both the originally approved cash flow and the update. For other exhibits, include only the revised version.

7-6.8 **Backup Documentation**

Include any materials that will support the proposed change to the approved project.

7-7 **Validation**

The sponsor forwards the DAR Modification Request to Capital and Program Evaluation, Finance, for validation (see chapter 5). Modification requests for R&D projects do not require validation, but Finance must issue a review letter.

7-8 **Review and Approval**

A DAR Modification Request must be approved in writing before the requested action is taken or additional funds are committed. Generally, a DAR Modification Request must be approved by the same approving officials as the original DAR. However, a request for additional capital funding may require higher-level approval. The sponsor coordinates the review process at Headquarters.

The field must review and approve requests to modify a field-sponsored project before the sponsor forwards the modification request to Headquarters for review, validation, and final approval (see Handbook F-66C). If a DAR Modification Request for such a project is denied at any level, a copy of the request and the decision must be sent to Capital and Program Evaluation, Finance.

7-9 **Document Retention**

Upon final approval, Finance keeps the approved DAR Modification Request along with the original DAR, and the sponsor keeps a copy in their project file.