United States
**Department of**
**Agriculture**

Office of the
Chief Information Officer

DR 3130-006 Version 2

INFORMATION TECHNOLOGY EARNED VALUE MANAGEMENT

EARNED VALUE MANAGEMENT TABLE OF CONTENTS

| DEPARTMENTAL REGULATION | NUMBER: 3130-006 |
|---|---|
| SUBJECT: Information Technology Earned Value Management | DATE: May 1, 2008 |
| | OPI: Office of the Chief Information Officer |

1.  PURPOSE

    This regulation defines the policies and responsibilities, for using and reporting
    Earned Value Management (EVM) for major USDA information technology (IT)
    investments.  It also defines responsibilities of personnel in various Departmental
    positions with respect to EVM implementation, application, and maintenance.


2.  BACKGROUND

    EVM is a project management methodology integrating scope, schedule, and
    resources, and objectively measuring project performance and progress.  The practice
    has steadily gained popularity throughout the world because of the improvements in
    project planning and execution realized by enterprises that have implemented EVM
    over the last four decades.  The following is a list of some of the relevant legislation,
    policy and standards related to the use of EVM:

    a.  Title V of the Federal Acquisition Streamlining Act of 1994 (FASA) requires
        agency heads to approve or define the cost, performance and schedule goals for
        major acquisitions to achieve, on average, 90% of the cost, performance and
        schedule goals established.

    b.  The Clinger-Cohen Act of 1996 requires the establishment of processes to
        analyze, track and evaluate the risks and results of all major capital investments
        for information systems for the life of the system.

    c.  Office of Management and Budget (OMB) Circular A-11, Part 7, Planning,
        Budgeting, Acquisition and Management of Capital Assets, and the supplement to
        Part 7, the Capital Programming Guide, were written to meet the statutory
        requirements of FASA and the Clinger-Cohen Act.

    d.  OMB Circular A-11, Part 7, requires use of an Earned Value Management System
        (EVMS) that meets the American National Standards Institute (ANSI)/Electronics
        Industries Alliance (EIA) Standard 748 "for both Government and contractors
        costs, for those parts of the total investment requiring development efforts (e.g.,
        prototypes and testing in the planning phase and development efforts in the

acquisition phase)" and requires that agencies "show how close the investment is to meeting the approved cost, schedule and performance goals."

3. AUTHORITY

This regulation is published in accordance with the authority vested in the Secretary of Agriculture under 44 U.S.C. 2104 and 3101; and 44 U.S.C. 3501-3548; and delegated to the Chief Information Officer (7 CFR 2.37).

4. REFERENCES

OMB Circular A-11, Section 53
OMB Circular A-11, Section 300
Federal Acquisition Streamlining Act of 1994
Clinger-Cohen Act of 1996
OMB Capital Programming Guide, Version 2.0, June 2006
USDA Capital Planning and Investment Control Guide
American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard, Earned Value Management Systems (ANSI/EIA-748-A), Approved  2002

5. SPECIAL INSTRUCTIONS/CANCELLATIONS

This Departmental Regulation supersedes Departmental Regulation 3130-006, Information Technology Earned Value Management, dated December 21, 2005

6. SCOPE

This regulation establishes the USDA EVM policy for major IT investments. The thresholds that determine applicability of this policy apply only to the development, modernization, or enhancement (D/M/E) expenditures of a major IT investment.

Each USDA mission area, agency, and staff office is obligated to meet the requirements of this policy.  Each mission area, agency, and staff office is authorized to develop and implement more specific policies and procedures or affect lower thresholds as long as they are consistent with this Departmental Regulation.

7. POLICY

   a. Compliance with the ANSI/EIA-748-A EVM Standard is required for:

      (1) All new major IT investments for which agencies are planning to spend D/M/E dollars for application development over the agency-defined life cycle.

      (2) All major IT investments that are currently in process and are budgeted for D/M/E spending during the remainder of the life cycle.

   b. All major IT investments that have planned budgets in D/M/E must provide to OCIO a written certification that the EVM system being used is in full compliance with the ANSI/EIA-748-A EVM Standard.

   c. The D/M/E planned costs for the investment includes both contracted and in-house work. Data collected from each contracted and in-house element of the project will be combined to measure and report an investment's performance.

8. AGENCY IMPLEMENTATION

   a. Each USDA mission area, agency, and staff office shall:

      (1) Develop long-range plans for systems and procedures to enable full compliance with the EVM guidelines for IT investments.

      (2) Certify the EVM process used by the investment is in full compliance with the ANSI/EIA-748-A EVM Standard. The agency, or an independent body for the agency will perform EVM process certification.

      (3) Establish documented policies and procedures for project performance measurement for all investments managed by that office as directed in the USDA Capital Planning and Investment Control (CPIC) Guide based on the following criteria:

         (a) For investments that are purely steady-state, complete an operational analysis.

         (b) For Non-major investments, with D/M/E, require some form of project performance-based management that provides for project plans, schedules, and budgets and the measurement of the execution against those plans, schedules, and budgets will be required.

(4) For major IT investments with D/M/E, provide planned value, earned value, and actual cost performance information on a monthly basis to USDA, OCIO by updating the current USDA EVM enterprise repository.

9.  OVERSIGHT, MONITORING AND REVIEW

OCIO will maintain oversight and final approval authority for all monitoring and review activities, and each agency shall be responsible for performing the following monitoring and activities on its investments.

a.  Integrated Baseline Reviews (IBRs):  All major IT investments with D/M/E will require the use of EVM (see section 7).  Agencies will conduct an IBR in accordance with the Federal Acquisition Regulation and/or ANSI/EIA-748-A EVM Standard .  A copy of the IBR report will be sent to OCIO when completed.

b.  Ongoing monitoring will be conducted by the agency to verify the functioning of approved systems, the validity of cost data, and actual progress of the investment(s).

c.  Monthly monitoring of EVM data reported by the agencies.

10.   RESPONSIBILITIES

a.   Secretary of Agriculture

As required by the Federal Acquisition Streamlining Act of 1994, the Secretary of Agriculture is vested with the authority and obligation to make continuation decisions for all IT investments that exceed the 10% variance threshold for meeting cost, schedule and performance goals of a major IT investment as established by OMB.

b.   USDA Chief Information Officer (CIO)

The Secretary of Agriculture has delegated to the USDA CIO oversight responsibility and authority for the Department-wide management of IT investments.  The CIO will:

(1) Administer the Departmental IT EVM Program and coordinate the activities of the Office of the Secretary and all subordinate organizations;

(2) Monitor EVM of investments as defined in Section 7 on a monthly basis;

(3) Place on an EVM watch list all major IT investments that are more than

10% over cost or behind schedule for a month, and prepare an investment review for each investment based on the agency-submitted corrective action plan;

(4) Prepare a recommendation to the Secretary of Agriculture for continuation or cancellation for all investments that are more than 10% over cost or behind schedule for three consecutive months;

(5) Review Departmental IT EVM reporting and record keeping requirements, including those contained in Departmental Regulations, the CPIC Guide, and other directives written to meet external requirements, to ensure that they impose the minimum burden upon the Department and program agencies and staff offices, have practical utility for the Department and program agencies and staff offices, and still meet all internal and external requirements; and

(6) Act as the USDA liaison with OMB with regard to implementation and execution of EVM for major IT investments at USDA. Among the duties inherent in this responsibility are the receipt of materials and information from OMB, distribution of OMB materials and information to USDA organizations, submission of EVM data and materials to OMB, and communication with OMB to clarify EVM issues identified by USDA.

c. Agency Heads

The head of each agency is responsible for ensuring IT investments support agency programs and that they are managed efficiently. Agency Heads ensure that the organization complies with section 7 of this directive. Agency executives will submit corrective action plans to the USDA CIO for investments that are on the EVM watch list (see section 10.b (3) above).

d. Agency Program/Investment Managers and CIOs

Agency Program/Investment Managers and CIOs are responsible for supporting and ensuring that IT investments as managed efficiently. Agency Program/Investment Managers and CIOs must comply with section 7 of this directive with the following considerations:

(1) Program/Investment Managers have the primary responsibility for program/investment management, including the application of ANSI/EIA-748-A to contracts, when applicable, through the contracting officer, and on in-house efforts that comprise a significant portion of the investment. The program/investment manager will establish and maintain a performance measurement baseline (PMB) for the total investment and notify the agency and USDA CIOs, by way of a corrective action plan, when significant changes to the PMB are required. A significant change is

any change that results in a change in total investment cost or schedule performance of more than plus or minus 5%, or that results in a scope change that impacts the functionality of the system.

(2) The program/investment manager prepares a corrective action plan for an investment when needed (see section 10.b (3) above).

(3) Agency CIOs are responsible for ensuring that program/investment managers have adequate support for the planning, development, and execution of IT investment projects and for maintaining sufficient documentation to support Exhibit 300 program management information used in the submittal of budget requests.

11.  DOCUMENTATION

Each USDA mission area, agency, and staff office shall create and maintain proper and adequate documentation of the policies, decisions, and procedures for the implementation of EVM for the Department to ensure practical and consistent application of EVM requirements to USDA IT investments.  Regardless of media, official records shall be developed and maintained in accordance with DR 3080-001, Records Management.

12.  ABBREVIATIONS

D/M/E    - Development, Modernization or Enhancement
EVM      - Earned Value Management
EVMS     - Earned Value Management System
IBR      - Integrated Baseline Review
LOE      - Level of Effort
PMB      - Performance Measurement Baseline
WBS      - Work Breakdown Structure

13.  DEFINITIONS

a.  Agency Head:  Person designated in charge of a USDA agency; i.e. Agency Administrator, Chief, or Office Director.

b.  ANSI/EIA-748-A:  American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard, Earned Value Management Systems (ANSI/EIA-748-A), Approved January 2002

c.  Certification of Earned Value Management System:  Each USDA Agency Head with responsibility for a major IT investment(s) will provide written certificate to

OCIO that the agency has an EVM system that complies with ANSI/EIA-748-A.

d.  Corrective Action Plan: A document in which the agency describes what steps
    will be taken to bring the cost and schedule performance of an investment back to
    within a 10% variance of the established parameters.

e.  Development, modernization, or enhancement (D/M/E):  Cost for new
    investments, and changes or modifications to existing systems that improve
    capability or performance, changes mandated by the Congress or agency
    leadership, personnel costs for project (investment) management, and direct
    support.

f.  Earned Value (EV):  The value of completed work expressed in terms of the
    approved budget assigned to that work for a schedule activity or work breakdown
    structure component.  Also referred to as the budgeted cost of work performed
    (BCWP)

g.  Earned Value Management (EVM):  A management methodology for integrating
    scope, schedule, and resources for objectively measuring project performance and
    progress. Performance is measured by determining the budgeted cost of work
    performed (i.e. earned value) and comparing it to the actual cost of work
    performed  (i.e. actual cost). Progress is measured by comparing the earned value
    to the planned value.

h.  EVM enterprise repository:  The electronic tool(s) USDA uses to calculate and
    report on IT investment EVM performance metrics.

i.  EVM System (EVMS):  The set of policies, practices, tools, outputs, and
    personnel resources that together meet the requirements defined in ANSI/EIA-
    748-A.

j.  EVM Watch List:  A list of investments that are more than 10% over cost or
    behind schedule for a given month.  These investments will receive a higher level
    of scrutiny from OCIO and require corrective action plans.

k.  General support system:  An interconnected set of information resources under
    the same direct management control that shares common functionality.  Such a
    system can be, for example, a local area network (LAN) including smart terminals
    that supports a branch office, an agency-wide backbone, a communications
    network, a departmental data processing center including its operating system and
    utilities, a tactical radio network, or a shared information processing service
    organization.  Normally, the purpose of a general support system is to provide
    processing or communications support.

l.  Information system:  A discrete set of information technology, data, and related
    resources, such as personnel, hardware, software, and associated technology

services organized for the collection, processing, maintenance, use, sharing, dissemination or disposition of information.  A system must have logical boundaries around a set of processes, communications, storage and must:

(1) be under the same direct management control;

(2) have the same function or mission objective;

(3) have essentially the same operating characteristics and security needs; and

(4) reside in the same general operating environment.

m.  Integrated Baseline Review (IBR): A review jointly conducted by the customer and the supplier Program Managers and selected staffs to effectively assess the PMB to ensure understanding of the scope of the IT investment, and to better understand inherent risks. Generally conducted at the control account level, the review will examine the scope statement for the control account, the resources assigned, and the schedule parameters to ensure realistic planning and to identify risk.

n.  Major application:  A use of information and information technology to satisfy a specific set of user requirements that requires special management attention to security due to the risk and magnitude of harm resulting from the loss, misuse or unauthorized access to or modification of the information in the application.  All applications require some level of security, and adequate security for most of them should be provided by security of the general support systems in which they operate.  However, certain applications, because of the nature of the information in them, require special management oversight and should be treated as "major".  Agencies are expected to exercise management judgment in determining which of their applications are major.

o.  Major Information Technology Investment:  A program, investment or application that requires the submission of an OMB Exhibit 300, or a combination of programs, applications and/or investments that has been designated by OCIO to be major because of risk, external interest, or other factors used by OCIO for determination.  The criteria for defining major investments are outlined in the USDA CPIC Guide to Information Technology.

p.  Operational Analysis Review:  The comparison of the performance of an IT asset or system to an established baseline (see Appendix D-Operational Analysis Review, USDA CPIC Guide to Information Technology for more information).

q.  Performance Measurement Baseline (PMB):  The time-phased budget plan against which project performance is measured.  It is the schedule for expenditure of the resources allocated to accomplish program scope and schedule objectives. (ANSI/EIA-748-A)

r.  <u>Program</u>:  A combination of projects with one common set of objectives.

s.  <u>Project</u>:  An effort of finite duration and scope with cost/budget limitations.

t.  <u>Product Performance Measurement</u>:  A pre-defined practice that measures the effectiveness and efficiencies gained through the capability/product produced by the program or investment and defined within the context of Appendix G - Performance Measurement, USDA CPIC Guide to Information Technology.

u.  <u>Project Performance Measurement</u>:  A pre-defined practice that measures the progress and performance of an investment or program against a performance measurement baseline (PMB) and defined in an official document defined generically as a System Description.

v.  <u>Work Breakdown Structure (WBS)</u>:  A product-oriented hierarchical structure that defines the work to be accomplished in the project.

w.  <u>WBS Dictionary</u>:  A companion document to the WBS that describes the scope for each and every WBS element.  The WBS Dictionary covers the entire scope of the project including management and support activities performed as part of the project.

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