Contractor Business Systems – Earned Value Management, Material Management and Accounting, and Property Management

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Agenda

• Business Systems Rule overview
• Earned Value Management System (EVMS)
  • Project planning that integrates project scope with cost, schedule and performance tracking metrics
• Material Management and Accounting System (MMAS)
  • Accounting for the acquisition, use, and disposition of materials
• Property Management System
  • Acquiring, tracking and disposing of government property
• Questions
Overview of the Business Systems Rule

• Interim Rule published May 2011, Final Rule published Feb 2012
  • Interim rule (76 Fed. Reg. 28,856 (May 11, 2011))
  • Final rule (77 Fed. Reg. 11,355 (Feb. 24, 2012))
• Applicable through clauses in DFARS, CAS-covered contracts awarded after May 2011
  • Other agencies (e.g., DOE) adopting/applying DFARS criteria
• Disapproved system results in withholding from:
  • Progress payments
  • Performance based payments
  • Interim payments under cost, T&M, and labor-hour contracts
Earned Value Management Systems: Applicability

- DFARS EVMS Clause, 252.234-7002, required in all cost or incentive contracts valued at $20 million or more
  - May also be required for other contracts based on government risk assessment and cost/benefit analysis
  - Use of EVMS in FFP contracts discouraged, waiver required
- Clause requires DOD-approved EVMS for contracts valued at more than $50 million
  - If system not approved at time of contract award, contractor is required to apply its current system and comply with its EVMS plan milestones
  - For contracts below $50 million, DOD will not determine whether system complies with EVMS guidelines
Earned Value Management Systems: Requirements

• Acceptable EVMS requires:
  • An EVMS that complies with the 32 guidelines in the American National Standards Institute/Electronic Industries Alliance (ANSI/EIA) Standard 748, Earned Value Management Systems
    • System disapproval required if significant deficiency found related to 16 ANSI/EIA-748 standard high risk guidelines (guidelines 1, 3, 6, 7, 8, 9, 10, 12, 16, 21, 23, 26, 27, 28, 30, or 32)
    • System may be disapproved in CO’s discretion if significant deficiency found in any of the remaining 16 guidelines
  • Management procedures that provide for generation of timely, reliable, and verifiable information for the Contract Performance Report (CPR) and the Integrated Master Schedule (IMS)
    • Integrated Program Management Report being phased in to replace CPR and IMS
Earned Value Management Systems: Requirements (cont.)

- Contractors required to submit to DOD notification of any proposed substantive changes to its EVMS procedures and impact of those changes
  - Contracts greater than $50 million require advance approval of changes
- Contractors also required to provide access to DOD for purposes of EVMS approval and surveillance
  - Reviews typically conducted at time of award or after major contract actions as part of integrated baseline review
Earned Value Management Systems: DOD Guide

  - EVMSIG to be DOD’s “authoritative source” for assessing EVMS compliance to the 32 ANSI/EIA-748 Guidelines

- EVMS compliance according to EVMSIG depends on:
  - Adequacy of EVMS system description
    - Must address how the contractor’s business processes and associated data meet the 32 ANSI/EIA-748 Guidelines
  - Proper implementation of EVMS as described in system description
  - Timely, accurate, reliable and auditable EVMS data

- EVMSIG provides compliance guidelines for each of the 32 ANSI/EIA-748 Guidelines
Earned Value Management Systems: ANSI/EIA 748 Guidelines

• Organization (Guidelines 1-5)
  • Consistent and rational approach for decomposing the program into manageable work breakdown structure (WBS) segments
    • WBS levels extend to appropriate control accounts
    • WBS revised to address authorized changes and modifications
  • Integration of planning, scheduling, budgeting, work authorization and cost accounting processes with each other and with WBS

• Planning, scheduling and budgeting (Guidelines 6-15)
  • Identification of objective indicators (products, milestones, or performance goals) that can be used to measure progress
  • Establish time-phased budget baseline at control account level to measure program performance
  • Establish budgets for authorized work with cost elements
Earned Value Management Systems: ANSI/EIA 748 Guidelines (cont.)

- Accounting for EVMS (Guidelines 16-21)
  - Direct costs recorded in accounting system are reconcilable to Actual Cost of Work Performed (ACWP) reported in EVMS
  - Allocating indirect costs to a program consistent with budgeted levels to permit analysis of indirect cost variances

- Analysis and management reports (Guidelines 22-27)
  - Regular reports showing cost and schedule variance
  - Integrating data into corrective action (root cause analysis, determining impacts, establishing corrective action plans, and tracking resolution)

- Revisions and Data Maintenance (Guidelines 28-32)
  - Incorporate authorized changes in a timely manner, recording the effects of such changes in budgets and schedules
  - Control retroactive changes to work performance data
Earned Value Management Systems: Key Compliance Issues

- Key Compliance Issues:
  - Lack of necessary integration between systems (accounting, purchasing, inventory, program management) to support EVMS
  - Failure to update budgets and schedules as a result of changes, modifications, government delays
  - Inadequate accounting for level of effort functions in program budgets
  - Adjustment of incurred costs fail to reconcile to accounting records
  - Consistent and appropriate use of management reserves
  - Lack of clearly delineated roles and responsibilities within EVMS
MMAS (Material Management & Accounting System): Brief History & General Requirements

- MRP (Material Requirements Planning) in 1964
- MMAS implemented in 1989 – 10 Standards
- MMAS in 2015 – DFARS § 252.242-7004: Contractor shall maintain an MMAS that -
  - (b)(1)(i) Reasonably forecasts materials, (ii) Costs charged or allocated based upon valid time phased requirements, and (iii) Consistent, equitable and unbiased logic for costing material transactions
  - (b)(2): Assess MMAS compliance and take reasonable actions to comply
  - (c) Disclosure & Maint. Requirements. The Contractor shall
  - (1) Have Pol & Proced, (2) Provide ACO reviews of compliance, and (3) Disclose significant MMAS changes to the ACO.
MMAS System Criteria
DFARS 252.242-7004(d)(1)-(10)

1. Adequate system description that complies with FAR and DFARS

2. Material Costs charged or allocated to a contract based upon valid time phased requirements impacted by minimum/economic order quantities
   i. 98% Bill of Material (BOM) and 95% Master Production Scheduling (MPS) accuracy desirable as a goal
   ii. If less accurate, evidence of no material harm to Government and cost to meet goal is excessive

3. Mechanism to identify, report and resolve weaknesses and manual override. Identify operational exceptions (e.g. excessive/residual inventory) as soon as known
**MMAS System Criteria**

**DFARS 252.242-7004(d)(1)-(10)**

4. Audit trails (manual or machine readable) to evaluate system logic and verify through transaction testing

5. Adequate levels of record accuracy, reconciling inventory quantities (booked vs physical) by part number on a periodic basis. 95% accuracy is desirable. If less than 95%:
   i. Evidence of no material harm to Government and
   ii. Cost to meet goal is excessive in relation to the impact on the Government

6. Detailed description of circumstances resulting in manual or system generated parts transfer
MMAS System Criteria
DFARS 252.242-7004(d)(1)-(10)

7. Consistent, equitable, unbiased logic for costing of material transfers:
   i. Policies describing transfer methodology audit trails (manual or machine readable) to evaluate system logic and verify through transaction testing
   ii. Standard or actual costs, any method in CAS 411-50(b) with consistency across all contract and customer types and from accounting period to accounting period for initial charging and transfer charging
   iii. System should transfer parts within the same billing period; exceptions may use loan/pay-back approved by ACO with controls:

   (A)-(D) Pay back is expeditious, correct overbillings, monthly identify borrowing contract/date, and cost of replacement is charged to the borrowing contract
MMAS System Criteria
DFARS 252.242-7004(d)(1)-(10)

8. Common inventory controls:
   i. Reallocations and any credits within routine billing cycle
   ii. Inventories for requirements not on contract are not allocated to contracts
   iii. Algorithms based upon valid and current data

9. Commingled inventories for fixed price, cost type and commercial do not compromise any standards in (d)(1)-(8). Government furnished material shall not be:
   i. Commingled with other material or
   ii. Used on commercial contracts

10. MMAS subjected to periodic internal reviews (as discussed later, DCAA misstates this as internal audits)
MMAS Key Audit and Compliance Issues

DCAA MMAS Pilot Audit(s)

- DCAA FY2016 Plan Included 5 MMAS Audits @ 4,000 hrs. each
- DCAA’s Current Audit Program...be aware of:
  - Monitoring and System description Contractor’s monitoring process and other studies (internal audits, consultants, independent CPAs)
    - Functional MMAS organization with defined responsibilities (implied: segregation of duties)
    - General control environment (if not previously audited)
    - Contractor “self-assessment” of its system description including deficiencies and corrective action (reference to (b)(2) assessment and disclosing results to ACO and/or DCAA)
  - Audit steps to express an opinion (Relying on the work of others) related to the adequacy of the system description
MMAS Key Audit and Compliance Issues
DCAA Audit Program

• DCAA’s Current Audit Program…be aware of:

  • Standard 2 (d)(2):
    • Evaluate the contractor’s selection of appropriate production contracts for (DCAA’s) detailed analysis
    • Evaluate the contractor’s calculations (98% BOM accuracy) including errors not included in the contractor’s calculation, contractor’s calculation of the cost impact and adjustments on billings (for invalid requirements)…implies any “invalid requirements” even if contractor meets 98% BOM accuracy
    • Evaluate MPS accuracy (capacity, lead times and process times as close as possible to the mfg./assembly need date)
    • Analyze the contractor’s assessment vs. what is “really being incurred” (capacity, process times, dock to stock, time in inventory)
    • Evaluate minimum buys and early supplier deliveries/acceptance
MMAS Key Audit and Compliance Issues
DCAA Audit Program (cont.)

• DCAA’s Current Audit Program…be aware of:
  • Standard 3 (d)(3); Evaluate the contractor’s analysis of:
    • MMAS exception reports including process for recording lost and found parts,
    • Policies, procedures and operating instructions,
    • Adequacy of the system to timely identify exceptions
    • Controls to avoid the entry of erroneous data
    • Identify and follow-up on costs incurred on spares after parts are delivered (why spares vs. any contract?)
    • Determine that billings were properly adjusted (implicates billing system in addition to MMAS)
MMAS Key Audit and Compliance Issues
DCAA Audit Program (cont.)

• DCAA’s Current Audit Program…be aware of:
  • Standard 4 (d)(4); Audit trail…determine the adequacy of the audit trail for each of the 10 standards
  • Standard 5 (d)(5) Physical inventories:
    • Evaluate policies and procedures including receiving, inspection/material returns, storing, issuing, valuing (quantity x unit price used to record inventory in a perpetual MMAS books of record)
    • Physically observe receiving inspection, materials issuance (but not the physical inventory process although one should expect an auditor to consider adding this)
    • Evaluate the contractor’s classification of materials whereby count tolerances are determined by the criticality of the material(s)
    • Reasonableness of cycle (periodic ongoing) counts of inventory
    • Impact of errors on Government contracts (e.g. corrected billings)
MMAS Key Audit and Compliance Issues
DCAA Audit Program (cont.)

• DCAA’s Current Audit Program…be aware of:
  • Standard 7 (d)(7) Material Costing (consistent, equitable, unbiased):
    • Initial charging compliant with CAS 411 and costing policies for “sensitive material transactions” (added by DCAA--nothing in DFARS)
    • Cost transfers, evaluate the contractor’s analysis of its detailed transfer listings, timing, if all costs were transferred (e.g. parts incorporated into subassemblies including material/labor/OH)
    • Loan/paybacks, evaluate the circumstances, audit trail (borrowing contract/date), timeliness, replacement charged to the borrowing contract, overbillings.
MMAS Key Audit and Compliance Issues
DCAA Audit Program (cont.)

• DCAA’s Current Audit Program…be aware of:
  • Standard 8 (d)(8) common inventories...
    • evaluate the magnitude of cost allocations from common inventories (if immaterial, further effort not required…implies DCAA knowledge that common inventories are atypical for materials charged direct to contracts)..but timing for charging common inventories could be an issue
  • Standard 10 (d)(10)
    • Internal Audits….DCAA misstates the requirement as internal audits vs internal reviews (DCAA pushing for access to internal audits)…if contractor monitoring of MMAS includes internal audits, DCAA will absolutely demand those internal audits.
Property Management: Applicability

• Property Management Clause, DFARS 252.245-7003, applies to:
  • Cost reimbursement and T&M contracts
  • Fixed-price contracts when the government will provide government property
  • Certain commercial item contracts involving government property

• Broad definition of property
  • Government owned property provided to a contractor for use during the performance of a contract
  • Contractor acquired property provided by contractor and to which the government has title
Property Management: Criteria

An acceptable property management system requires compliance with 10 outcomes of FAR 52.245-1(f):

- Acquisition of property
- Receipt of property
- Property records
- Physical inventory
- Subcontractor control
- Reports
- Relief of stewardship responsibility
- Utilizing government property
- Maintenance
- Closeout
Property Management: Key Compliance Issues (cont.)

- Failure to properly tag and track Government property
  - Failure to appreciate scope of government property under cost-type and T&M contracts
  - Use of government property for commercial operations without Government approvals
  - Comingling of contractor and government property; capital type projects that integrate government funding susceptible to challenge

- Lack of audits / due diligence to ensure Government property systems are functioning
  - Assumption / reliance upon accounting / purchasing systems to track government property
  - Can result in difficult process to identify Government property when questions arise during audits or close-out
Property Management: Key Compliance Issues (cont.)

• Records fail to provide a complete auditable trail of all transactions
  • Records do not show complete history from receipt to disposal
  • Records do not accurately show location of property
  • Records not updated timely
  • Records do not tie to particular contracts

• Subcontractor property
  • Property terms and conditions are not flowed down to subcontractors handling government property
  • Subcontracts do not clearly identify property to be provided
  • Subcontractor property surveys and audits not conducted/corrective action not enforced
  • Failure to track location of subcontractor property throughout supply chain
Property Management – Best Practices

• Best Practices
  • Assignment of property administrator
  • Comprehensive policies and procedures
  • Use of voluntary consensus standards
  • Integrated government property IT system – tracks property from acquisition through disposition
  • Internal audits
  • Monitoring/implementation of corrective actions
Questions

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