Material Transfers and Material Management and Accounting System (MMAS)

The Scenario

Risk Assessment-Research and Planning:
The auditor was assigned an audit of major contractor MIL's Material Management and Accounting System (MMAS). The Administrative Contracting Officer (ACO) requested the audit after the Contracting Officer's Technical Representative (COTR) noted, while reviewing the contractor's billing for the last 6 months, unexpected increases in material costs on several fixed-price incentive and cost-reimbursable contracts. During a discussion with the ACO and COTR, the auditor learned that the ACO had contacted the Defense Contract Management Agency (DCMA) Contract Integrity Center attorney about the identified increases. The DCMA attorney recommended the ACO request DCAA to audit the contractor's MMAS. At the auditor's request, the ACO provided copies of the questionable billings.

The auditor also reviewed MIL's electronic permanent file, which included the prior MMAS audit, other relevant internal control and Cost Accounting Standard (CAS) audits, audit leads, and general contract and organizational information. The auditor documented general information and fraud risk factors relevant to the requested MMAS audit.

- The contractor's primary business is providing computer circuit parts for various defense and commercial applications.
- MIL has a mix of contracts including firm-fixed-price, fixed-price incentive, cost-reimbursable, and commercial.
- The audit of MIL's accounting system was performed in the previous year and did not identify any significant deficiencies. Last year MIL provided the DCAA audit staff online access to all the accounting system components including the MMAS.
- The previous MMAS audit was performed 2 years prior when MIL went from a mostly manual system to a new automated MMAS. The audit report stated that MIL's system was adequate and compliant with the 10 MMAS business system standards in the Defense Federal Acquisition Regulation Supplement (DFARS) 252.242-7004 (d).

Preliminary Analytical Procedures:
The auditor used the contractor-provided online access to its accounting system to query the system for job cost ledger transactions for the previous year on the fixed-price-incentive and cost-reimbursable contracts that were of concern to DCMA. The auditor identified relevant factors from this review.

- During the last 6 months, material costs charged to these contracts increased between 40 and 60 percent as compared to the costs charged during the first 6 months.

- There was a substantial increase in the number of automated material transfers during the second 6-month period in comparison to the number of automated transfers during the first 6-month period.

Entrance Conference:

The auditor scheduled an entrance conference with the contractor representative and asked the audit supervisor, internal control technical specialist, and a DCAA regional information technology (IT) auditor to attend. The contractor representatives in attendance included the audit liaison, controller, and inventory/stores manager. The contractor representatives provided a MMAS orientation briefing and a demonstration of the transaction flow for the system (system walk-through). During the entrance conference the auditors asked the following series of questions.

Auditor Question: "What changes have been made to MIL's MMAS since the last audit 2 years ago?"
Contractor Response: "We haven't made any changes to the system since your last audit, which determined that our system was okay."

Auditor Question: "What internal audits have been performed that covered the MMAS internal controls since the last MMAS audit?"
Contractor Response: "We need to check, but I recall that one was done last year that mostly focused on material requirements being valid and properly time-phased. The audit did not identify any significant internal control deficiencies."

Auditor Follow-up: "Please provide a copy of that internal audit report."
Contractor Response: "Sure – no problem."

Auditor Question: "During the preliminary risk assessment procedures for this audit, we were looking at the job cost detail for some contracts and noted that over the last 6 months these contracts had a large number of automated material cost transfers compared to the number of these transfers completed during the first 6 months. During the system demonstration, it was explained that the MMAS was designed to transfer parts based on prioritized needs. What would cause a substantial increase in the number of transfers found?"
Contractor Response: "We monitor our material cost transactions including transfers, but we are not concerned about the number of material cost transfers because the system is operating as intended. A lot of our parts are used on multiple contracts. So when a higher priority project is set-up, the system automatically transfers existing parts from lower priority projects to accommodate the required delivery schedules."

Auditor Follow-up Question: "How does the MMAS determine project priority and how is that priority assigned in the system?"
Contractor Response: "When we set up projects in the MMAS, program management assigns a priority 1, 2 or 3 to each project based on the material requirements and delivery schedules for that project. The system then uses the priority assignments to make automated material transfers as necessary. Also program management can change the priority assignments anytime during project performance to accommodate any changed requirements or delivery schedules."

Auditor Question: "What are the primary risks of fraud identified regarding the MMAS?"
Contractor Response: "Inventory thefts mostly since a lot of our electronic circuit parts are pretty expensive and easily pilfered. We have designed many internal controls around this risk including frequent surprise inventory counts and electronic surveillance of our inventory stores facilities. We also monitor how often we have to re-order various parts and investigate if there is an ordering spike inconsistent with material requirements."

Auditor Question: "Has MIL made any contractor disclosures as required by Federal Acquisition Regulation (FAR) 52.203-13 related to material requirements, transfers, or costing?"
Contractor Response: "We are currently processing a disclosure involving one of our suppliers who supplied us with a nonconforming part that was put into our circuit boards and used on some Navy planes. We notified the contracting officer, identified all the affected boards, and replaced them at no additional cost to the Navy contracts. We will be submitting that disclosure within the next few weeks.

Auditor Question: "What knowledge does MIL management have regarding any fraud or suspected fraud affecting the MMAS?"
Contractor Response: "Well, other than the disclosure I just mentioned, I personally am not aware of any fraud or potential fraud."

Auditor Question: "What allegations of fraud or suspected fraud affecting the MMAS is MIL management aware of? For instance, have employees, former employees, regulators, or other stakeholders submitted allegations to MIL's hotline?"
Contractor Response: "Again, I am not aware of any, other than the disclosure."

Contractor Question: "I do not understand why you are asking all these questions about fraud? Have you received a tip or allegation? I don't remember being asked these questions during other audits."
Auditor Response: "We are responding to a request for an audit of the MMAS from the ACO. However, as part of the audit process we are required to design our audits to detect instances of fraud or noncompliances with laws and regulations that are material to the audit subject matter, in this case the MMAS. DCAA recently issued new guidance to support this requirement that included making inquiries of management about their knowledge of potential fraud and areas of fraud risk. Public accounting firms are required to make these same kinds of inquiries.

<u>Audit Team Brainstorming for Fraud Risk Assessment:</u>
The audit team met to brainstorm about the potential fraud risks for the MMAS audit based on the information reviewed to date as well as the ACO and COTR's concerns. The team recognized that the increased material costs on the flexibly priced contracts as well as the large number of material cost transfers could be the result of both potential internal control weaknesses and fraud indicators. To address the indicators, the audit team decided to perform, in addition to the MMAS standard audit procedures, the following audit procedures on the fixed-price-incentive and cost-reimbursable contracts identified by the COTR.

- To determine whether the increased material costs were due to unnecessary materials being charged to the contracts, the auditor would review and compute the bill of material (BOM) accuracy for all contracts in which material costs increased by more than 40 percent[1] during the last 6 months when compared with the first 6 months.

- For those contracts where the BOM accuracy met the 98-percent standard in DFARS 252.242-7004 (d)(2)(i),[2] the auditor would compare the unit cost by part charged during the first 6 months to the unit cost for the same part charged during the second 6 months to identify the source(s) of the 40- to 60-percent increase in cost.

- The auditor and IT auditor would review a nonstatistical sample of the material transfers to determine if a pattern exists as to which contracts or types of contracts the material costs were transferred to and from. The test would also include verifying that the transactions complied with the contractor material transfers policies and procedures, in particular regarding the project priority assignments.

<u>Results from Audit Procedures:</u>
The audit team performed the planned audit procedures and identified the potential issues listed below.

- The costs for several high-priced parts were initially charged to a contract earlier in the first 6 months of the year, transferred to a different contract, then later re-ordered and charged to the original contract in the second 6-month period at a different, usually higher, price.

- The material transfers reviewed indicated that primarily fixed-price and commercial contracts received the material cost transfers made during the first 6 months of the year.

- The IT auditor noted in reviewing automated processing controls that the project priority assignments in the system had changed significantly during the last 6 months from their original assignments. The auditor found that the projects changed to high priority were generally commercial or firm-fixed-price work while those changed to a lower priority were generally fixed-price-incentive and cost-reimbursable work.

<u>Expanded Audit Procedures and Results:</u>
The audit team discussed the audit results to date including the identified transactional patterns and decided to expand the audit scope to include additional procedures.

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[1] The 40-percent materiality threshold used in this scenario is not an established threshold nor does it mean that cost increases below 40 percent should not be considered for review. The auditor should evaluate each audit or situation on its own considering all applicable risk factors.

[2] BOM accuracy is one measure that products are produced timely, efficiently, and with minimum waste. The BOM identifies materials and quantities required to manufacture an item. An accurate BOM represents contractually required materials. Comparing total requirements per the BOM with material contract charges can identify the existence of costs that (1) are not based on requirements, (2) exceed contract requirements, and (3) represent requirements for which no costs have been incurred.

- The auditor compared the delivery schedules for the various projects involved with the cost transfers to the projects' assigned priority to determine the relationship of the assigned priority to the required delivery date. The auditor was unable to identify any relationship between the assigned priority and the required delivery date.

- The auditor compared the contractor's incurred cost with established budgets on the various projects over the last year and discovered that projects that were assigned a higher priority, generally firm-fixed-price and commercial work, were close to or over budget.

- The IT auditor identified a hidden script that automatically changed original project priority assignments based on project types by analyzing the computer code associated with the project priority assignments. This helped the auditors confirm that the pattern that existed in the changing priorities and material cost transfers was not based on valid time-phased requirements. For instance, the computer software automatically revised a firm-fixed-price contract priority from a 2 to a priority 1 about a month later with no discernible change to the required delivery schedule.

Further Actions:
The auditor set up a teleconference with the audit team, regional audit manager, DCAA investigative support auditor, ACO, DCMA Contract Integrity attorney, and the local DoD criminal investigator to discuss the audit results and the forthcoming Form 2000 suspected irregularity referral. The teleconference would also address the MMAS deficiency report and the audit recommendation for the ACO to withhold costs on the overcharged contracts to protect the Government's interests.

The DCAA audit supervisor stated that DCAA still had other parts of the MMAS to audit, and that the audit would continue unless the investigator submitted a written request to defer or suspend the audit effort. The supervisor also explained that although generally accepted government auditing standards require the report to discuss all significant audit findings, it would not refer to any suspected irregular conduct nor a referral for investigation. However, the supervisor added that the report may have to be qualified if the inadequate or unreliable contractor MMAS records resulting from systemic material transfer deficiencies affects DCAA's ability to effectively audit the MMAS in accordance with auditing standards.

General Comments/Lessons Learned:
A contractor should regularly monitor its internal control systems to determine whether its control procedures are adequate and operating as intended. Continuous internal controls and system reviews are an integral part of auditing any company. Auditors need to exercise the appropriate level of professional skepticism when reviewing system controls and procedures especially relating to system software. If the integrity of the company's accounting and related operating systems cannot be relied on, the auditor cannot use or rely on the information generated without additional confirming evidence or support. Each system's integrity must be continually reviewed and verified. Any transfer of material costs should be reviewed for appropriateness. See Audit Alert information after the Fraud Indicators section regarding potential internal control risk factors associated with the Systems, Applications, and Products

(SAP) accounting system component for grouping, pegging and distribution (GPD) of material costs.

FRAUD INDICATORS

- **Transfers from ongoing jobs to open work orders for items previously delivered.**
- **Transfers from ongoing jobs to open work orders for items scheduled for delivery in the distant future.**
- **Transfers from Government contracts (projects) to commercial projects.**
- **Transfers from cost-type job orders to fixed-price job orders.**
- **Transfers at costs substantially different (higher or lower) than actual costs.**
- **Mass transfers from one job order to various other job orders. No physical inventory is left on the original job order, but it still has costs charged to it.**
- **Patterns of material transfers that are not compliant with established policies and procedures.**

<u>Audit Alert for Risk Factors Associated with Grouping, Pegging, and Distribution (GDP) Within SAP Software:</u>

In January 2014, DCAA issued an audit alert for potential internal control risk factors associated with the Grouping, Pegging, and Distribution (GPD) component of the SAP accounting system software. GPD is an automated inventory process where parts and their associated costs move between contracts. Grouping allows for the segregation of requirements into groups, pegging links requirements to replenishment within a grouping, and distribution takes the assigned quantities made during pegging and distributes the cost to cost objectives. The weaknesses/risk factors identified in the alert are as follows:

- Premature Bill of Material (BOM) Costs – GPD configuration and controls do not prohibit the billing of parts in advance of use in the production process.
- Bill of Material in Excess of Contract Requirements – GPD may assign parts to contracts in excess of bill of material (BOM) requirements, which allows the contractor to bill for material in excess of contract requirements.
- Material Title Passed to Government – When material title passes to the Government, the contracting officer must approve transfer of material between contracts; however, GPD automatically reassigns material and costs between contracts without the required authorizations.
- Audit Trail – Due to the continual cost shifting of the GPD processes, a limited audit trail that allows for tracing costs from the contractor's book and records to supporting documents (i.e., purchase requests, invoices, and receiving reports) exists.

- Costs Assigned to Closed Work Orders – the GPD process continues to allocate costs for a production part even after shipment of the part. Therefore, closed work orders used for estimating costs in forward-pricing are not reliable.