



DEFENSE CONTRACT AUDIT AGENCY
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IN REPLY REFER TO

PPS 710.7

January 30, 2014
14-PPS-001(R)

MEMORANDUM FOR REGIONAL DIRECTORS, DCAA
DIRECTOR, FIELD DETACHMENT, DCAA
HEADS OF PRINCIPAL STAFF ELEMENTS, HQ, DCAA

SUBJECT: Audit Alert – Risk Factors Associated with Grouping, Pegging and Distribution within SAP Software

This guidance was developed with the assistance and support of several technical specialists and field auditors working in the Material Management and Accounting System (MMAS) area Agency-wide. We wish to thank them for their input.

The purpose of this audit alert is to provide increased awareness of risk factors associated with Grouping, Pegging and Distribution (GPD). GPD is a component of SAP software, and therefore, is only applicable at contractors that have implemented SAP. GPD is an automated inventory process where parts and their associated costs move between contracts. DCAA reviews have raised concerns regarding the movement of costs with GPD.

The audit team at contractors using SAP should gain an understanding of the contractor's GPD and how it works to ensure compliance with regulatory requirements (e.g., DFARS 252.242-7004, MMAS; DFARS 252.215-7002, Cost Estimating System Requirements; DFARS 252.242-7006, Accounting System; FAR 52.216-7, Allowable Cost and Payment; FAR 52.232-16(d)(5), Progress Payments, etc.) To accomplish this, the contractor should provide a walk-through of its GPD process to include scheduling, cost assignment and reassignment, and the impact on billings due to variances that result from the parts movement as a result of GPD within a SAP accounting system.

What is GPD?

GPD is a function of Material Requirements Planning (MRP) that supports inventory management and cost distribution for project-based accounting by automatically assigning and reassigning materials to contracts. Definitions for each phase include:

- Grouping – Grouping allows for the segregation of requirements into groups. The contractor assigns a methodology for the planned arrangement of material based on defined material or inventory management criteria. Examples of grouping criteria include contract type, material dollar threshold, commodity, product line, etc.
- Pegging – Pegging links requirements to replenishment within a Grouping. Pegging assigns material to a cost objective based on material requirements.
- Distribution – Distribution is the function of GPD that takes the assigned quantities made during pegging and distributes the cost to the cost objectives.

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Why is GPD an audit issue?

Audit teams have identified weaknesses/risk factors in the SAP system GPD performance as illustrated below:

- **Premature Billing of Material Costs** – GPD configuration and controls do not prohibit the billing of parts in advance of use in the production process.
- **Billing 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, there is 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).
- **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.

How does GPD effect specific audit assignments?

Audit teams should consider the risk areas above during the risk assessment for various audit assignments as discussed below:

Material Management Accounting System (MMAS) – GPD can affect the contractor's compliance with certain MMAS system criteria prescribed in DFARS 252.242-7004(d) and summarized below:

- **System Criteria 2** – Ensure that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements as impacted by minimum/economic order quantity restrictions. Valid time-phased requirements means material that is (i) needed to fulfill the production plan, including reasonable quantities for scrap, shrinkage, yield, etc.; and (ii) charged/billed to contracts or other cost objectives in a manner consistent with the need to fulfill the production plan.
- **System Criteria 4** – Provide audit trails and maintain records (manual and those in machine-readable form) necessary to evaluate system logic and to verify through transaction testing that the system is operating as desired.
- **System Criteria 6** – Provide detailed descriptions of circumstances that will result in manual or system-generated transfers of parts.

System Criteria 2 – An effective MMAS will include an integrated Master Production Schedule (MPS). The MPS acts as the linkage between the planning processes so the requirements for individual end items are properly identified and scheduled for procurement by their need date under MMAS. The contractor is obligated to show that its MPS is properly scheduling material

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requirements based upon valid time phasing. This is to ensure that the material ordered is acquired within a reasonable period of time to meet production schedules while minimizing carrying costs. The GPD process can affect the time-phasing strategy because it can automatically redistribute, or peg, all on-order and on-hand quantities, based on current requirements (i.e., need dates). Changes in the production schedule and inventory levels (e.g., non-receipt of material, inferior material, excess materials) result in changes in demand and the redistribution of costs. This ultimately results in differences in the current assignment of costs to the original time phasing established in the MPS, which in turn may cause the contractor to be noncompliant with MMAS Criteria 2.

System Criteria 4 – The MMAS criteria requires the contractor to maintain audit trails and records necessary to evaluate the system. However, GPD does not always maintain an adequate audit trail within the groupings between distribution runs.

System Criteria 6 – The MMAS criteria requires detailed descriptions of circumstances that result in manual or system-generated transfers of parts. These descriptions should encompass the automated nature and frequency of re-pegging of materials within GPD. In determining compliance with MMAS Criteria 6, audit testing should include a detailed evaluation of the contractor's transfer description to ensure all facets are covered.

Progress Payments and Cost Vouchers – There is a potential for material and associated costs to move from one cost objective to another cost objective within the same group. Gaining an understanding of the grouping strategy is required to determine if potential risks exist under the following FAR clauses:

- **FAR 52.216-7, Allowable Cost and Payment** – This clause states reimbursable costs include materials issued from the contractor's inventory and placed in the production process for use on the contract (see CAM 14-202.4).
- **FAR 52.232-16(d)(5), Progress Payments** – Title to property acquired by the contractor passes to the Government when the property is allocated or charged. Once title to material passes, the contractor cannot use (i.e., assign and reassign) the material without the prior approval of the contracting officer.

As discussed above, the dynamic nature of GPD processing results in the assignment and reassignment of material between government contracts. This can occur after title has passed to the Government and payment was received by the contractor. The purpose of the Government title clause is to protect the Government's financial interest (FAR 52.245-1(e)). If the contractor foregoes properly notifying the Government and unauthorized reassignments are processed, the Government can no longer ensure material transferred is required and properly time-phased.

Forward Pricing – Configuration of the contractor's GPD could result in the redistribution of material and labor costs to open and closed work orders (items shipped and completed). If GPD configuration is allocating costs across open and closed work orders, consider the criteria outlined in DFARS 252.215-7002, Cost Estimating System Requirements, and DFARS 252.242-7006, Accounting System. Both the estimating and accounting system criteria require the contractor to provide reliable data for use in pricing follow-on contracts (i.e., historical data), which GPD can

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affect if labor hours or material dollars are transferred on or off a closed contract. GPD configuration should not adversely affect the contractor's ability to: (i) initiate, authorize, record, process, or report data reliably and (ii) place reliance on the actual hours used as a basis of estimate to propose manufacturing hours. The use of open and closed work orders in this situation could affect the audit team's ability to perform audit procedures, such as improvement curves.

Is GPD a CAS 411 (48 CFR 9904.411, Accounting for Acquisition Costs of Material) noncompliance?

After coordination with the Defense Contract Management Agency and DCAA Legal, it was determined that GPD reallocation of material parts, even when the purchase order identifies a specific contract, is CAS 411 compliant. It was determined that the reallocation is a material transfer issue. The preamble to CAS 411 recognized that CAS 411 should not govern costs of material transfers; therefore, the CAS Board removed the provision concerning cost of transfers of material between cost objectives.

Questions and Further Information

Enclosure 1 to this audit alert includes several Frequently Asked Questions that will provide more detailed information regarding some of the areas discussed in this memorandum. Enclosure 2 provides examples of questions to ask the contractor in order to gain a better understanding of how GPD works at your contractor. Enclosure 3 contains a list of pegging and distribution reports that are available within SAP, and may be helpful in reviewing GPD. FAO personnel should direct questions regarding this memorandum to their regional offices and regional personnel should direct any questions to Patricia Wright, Program Manager, Policy Publications and Systems Division at (316) 558-9609 or e-mail at DCAA-PPS@dcaa.mil.

/Signed/

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Policy and Plans

Enclosures:

1. Frequently Asked Questions
2. Questions to Ask to Obtain an Understanding
3. Pegging and Distribution Reports

DISTRIBUTION: E

Grouping, Pegging and Distribution Frequently Asked Questions

Question 1: What is the best type of report to issue when you have a finding with GPD?

Answer: The audit team will report the GPD finding in the audit assignment that generated the finding. However, the finding may result in a deficiency in one of the business systems. If this occurs, the FAO will need to determine whether the deficiency rises to the level of a significant deficiency, as defined in DFARS 252.242-7005, Contractor Business Systems. If it is determined to be a significant deficiency in one of the business system criteria, issue a deficiency report (11090) to ensure the contracting officer takes any necessary action in a timely manner. This has to be determined on a case-by-case basis by the audit team.

Question 2: What is repegging and why does it occur?

Answer: Repegging is a generic term used by contractors and auditors. The SAP term is pegging, which is the reassignment of material from one cost objective to another cost objective within the group. This occurs, generally, when MRP requirements change within a group and GPD runs the recurring pegging and distribution process.

Question 3: How is nesting utilized within the group?

Answer: Nesting is a subgroup within the group and is set up for special purposes. Special purposes may include isolating material from the pegging and distribution process (i.e., parts purchased for a specific contract), freezing material for terminations, or other contractor-defined purposes.

Question 4: Why is time-phasing of material purchases important?

Answer: DFARS 252.242-7004, MMAS System Criteria 2 requires valid time phasing. DFARS states “The MMAS shall have adequate internal controls to ensure system and data integrity, and shall . . . (2) Ensure that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements as impacted by minimum/economic order quantity restrictions.” The DFARS also defines valid time phased requirements as “material that is needed to fulfill the production plan . . . and charged/billed to contracts or other cost objectives in a manner consistent with the need to fulfill the production plan.” Additional Agency guidance is included in CAM 5-707.3.

The audit team should consider time-phasing in a review of GPD because of the pegging process. The pegging process may allow the contractor to assign parts to a contract well in advance of the need date in the manufacturing process. This could result in excessive inventory carrying costs (i.e., storage, taxes, insurance, obsolescence, etc.) and increased inventory. Gaining an understanding of the contractors logic used in the development of GPD will help determine if there is justification for material purchased and charged, or allocated to contracts, in greater quantities than the time-phased requirements.

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Examples of Questions to Ask in Gaining an Understanding of How GPD Works at Your Contractor

A walkthrough of the contractor's GPD process is the best start in gaining an understanding of how GPD functions at your location. Below are some of the questions which may help in the development of key control points in understanding the process of GPD.

- a. **What is your grouping strategy?** The contractor can combine material requirements from different contracts in one or more groupings for common inventory management and material requirements planning. Therefore, it is important to understand how the contractor groups the material (e.g., contract type, program, plant, commodity, etc.) and what materials are included or excluded from the grouping strategy.
- b. **Define project and plant stock as part of identifying the grouping strategy.** The contractor's definition and allocation method of project and plant stock impacts the grouping strategy. An understanding of the difference between project and plant stock is required. This may be included in the contractor's disclosure statement or other supporting information. Request the contractor explain how it ensures that its actual practices are consistent with its disclosed practices.
- c. **What types of materials are included and excluded in the GPD process?** Not all material may be included in the GPD process. Materials may consist of raw material, purchase parts, production material including associated costs (e.g. labor, overheads), allocated materials, company owned, etc.
- d. **What is the pegging and distribution cycle?** Within the GPD group, pegging links contract requirements to the material on-order and on-hand. Request the contractor to explain the assignment criteria and frequency of the pegging and distribution cycle. The frequency may occur daily, weekly or monthly and can be different for pegging verses distribution. For example, the contractor could peg on a daily basis but distribute costs weekly. Request the contractor explain how it ensures the inventory costing method corresponds to its disclosed practices.
- e. **What is the Material Requirements Planning (MRP) cycle?** MRP uses bill of material data, inventory data and the master production schedule to calculate requirements for materials. Request the contractor to explain its MRP cycle and its effect on GPD. Also, see CAM 5-702.
- f. **What are the parameters for pegging exception?** GPD assigns materials that have MRP requirements. There are three categories of non-assigned materials that are called pegging exceptions. The three categories are surplus, scrap and stock difference. Surplus is when a material quantity does not have an MRP requirement. Pegging also accounts for scrap and stock differences (material either gained or lost during an inventory count). The audit team should gain an understanding of how the contractor accounts for excess material costs in the books and records. Material purchased for future requirements (surplus/excess materials) may be included in current contract bills. Consider this in the risk assessment.
- g. **How is material assigned and reassigned?** GPD logic assigns and reassigns material to requirements each time GPD runs. The audit team needs to understand the frequency and significance of reassigned material. This may be an indication that

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Examples of Questions to Ask in Gaining an Understanding of How GPD Works at Your Contractor

material is on-hand significantly in advance of when it is needed in the manufacturing process, which indicates a risk factor.

- h. **Demonstrate and define the audit trail for pegging and distribution reassignments.** Under the Federal Acquisition Regulations (FAR) Material Management and Accounting System (MMAS) criteria, the contractor must demonstrate the audit trail for pegging and distribution. An audit trail may include a contractor-generated pegging change report; if not available, the audit team should determine if the contractor has something similar to track pegging changes. (DFARS 252-242-7004d and FAR 52.245-1(b)(1))
- i. **Can GPD distribute costs to the work order after the work order is closed?** GPD configuration determines the distribution of costs. The audit team should understand when material and associated costs included on a work order are excluded from the GPD process and assigned to the final cost objective. The audit team should determine the appropriateness of the costs distributed to closed work orders.

Grouping, Pegging and Distribution Pegging and Distribution Reports

The following pegging and distribution reports are available within SAP, and may help in reviewing GPD.

Pegging Reports		Distribution Reports	
PEG01	Collective Processing – Pegging	DIS01	Collective Processing – Cost Distribution
PEG02	Manual Maintenance Of Assignments	DIS05	Report: Cost Overview
PEG03	Maintenance Of Break		
PEG04	Distribution Of Exceptions		
PEG05	Report: Assignment Overview		
PEG06	Report: Quantity Structure		
PEG07	Report: Stock Overview		
PEG08	Report: Display Change Documents		
PEG09	Assignment Of Grouping WBS Element To Plant		
PEG10	Reconciliation Report: Compare Stock		
PEG11	Pegging: Table Maintenance		
PEG12	Filling of Pegging Work list		
PEG13	Pegging: Unassigned Replenishments		
PEG14	Pegging: In-transit Stock Report		
PEG15	Transfer Pegging Program		