

Streamlining Material Management for Research and Development Contracts

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One way to do more with less.

Many Government research and development contracts include a requirement to fabricate a prototype or limited production run of a new equipment item or component as a deliverable in one or more tasks. The Federal Acquisition Regulation (FAR) Subpart 45.5, Management of Government property in the possession of contractors, paragraph 45.505-3, Records of material, provides the basic record keeping requirements for materials acquired for the fabrication of such an equipment item or component. It requires all Government material furnished to the contractor, as well as other material purchased by the contractor in the performance of the contract, to be recorded in accordance with the contractor's property control system and the requirements of the FAR paragraph.

Even if the contractor's approved system is automated to minimize resources required to enter material items into a stock records system, additional resources can be saved if the requirement to establish and maintain stock records for the materials can be eliminated. FAR 45.505-3(d)(2), Use of receipt and issue documents, provides the contractor with an alternative to maintaining stock records. To use it, the contractor must maintain a file of appropriately cross-referenced documents evidencing receipt, issue, and use of material that is issued for immediate consumption and is not entered in the inventory record (stock record). The contractor must request and receive approval

from the contract Government Property Administrator (GPA) to use this alternative.

Prior to requesting approval from the GPA to use the receipt and issue (R&I) technique, the contractor should develop procedures which describe how the method will be implemented. There is no requirement to develop separate procedures for each contract as, once they have been approved by the GPA, they can be incorporated into the contractor's Government property management system. However, approval to use the R&I technique must be requested and received from the GPA for each different contract on which the contractor would like to use it. The procedures should include steps showing who is responsible for the materials and for completion and filing of all documentation from the item's receipt until it is incorporated into the end item or component being fabricated. An example of a letter requesting approval from a GPA is shown in Figure 1 and an example R&I procedure is shown in Figures 2, and 3.

Many contractors use a Bill of Materials (BOM) as the primary documentation for the R&I technique. A BOM should be designed to include all key audit trail information for any material item entered on it. An example BOM is shown in Figure 4. The most efficient way to use the BOM is to enter the heading information (contract/task number, drawing number, etc.) and the material description information in an electronic file copy using a computer spreadsheet application program as soon as

the contractor task team receives a copy of the purchase order. Note the example BOM allows for two partial receipts for each item.

For simple tasks, all of the procurement information can be entered into the BOM before it is printed (Revisions to the BOM may be required in unusual cases where purchase order information is not available prior to receipt of the materials). For more complicated tasks, which require larger quantities of materials, it may be necessary to use a series of BOMs. The initial BOM can be compiled electronically on the computer until the materials on it begin to be received. At this time, the initial BOM should be printed so the materials received may be issued to team members who must sign a hard copy of it to acknowledge receipt. Procurement information for additional required materials should be entered into electronic copies of subsequent BOMs and printed to allow for issues until all requirements are documented on a BOM.

This technique was found to be beneficial in a large professional services company performing Government research and development contracts for the following reasons:

- Contract technical staffs were encouraged to manage Government materials in accordance with Government property clauses because of the minimized resources required to manage them.
- Additional resources were available to accomplish contract technical work as a result of the resources saved in material management.
- Storage requirements were minimized.

Property managers whose companies engage in research and development Government

contracts which require the fabrication of a prototype or limited production run of a new equipment item or component as a deliverable should seriously consider using the R&I technique. It is definitely "One way to do more with less."

Biography: Gary Swanson is a member of the Land of Enchantment Chapter. He was the Government Property Manager for the BDM Federal, Inc., Albuquerque Technology Center from March 1988 until May 1993. Gary is now a Senior Property Specialist for Enterprise Advisory Services, Inc. supporting the Property and Administrative Services Division, Albuquerque Operations Office, U.S. Department of Energy in personal property management oversight of two national laboratories and four production plants. Gary would like to acknowledge Merle Prinz, BDM Corporate Property Manager while he was employed with BDM, as the author of the original R&I procedures which Gary edited and modified for this article. Merle was a previous chairman of the NPMA Nova Chapter. The Bill of Materials form is Gary's original design.

(Date)

Property Administrator
Address
Anycity, USA 00000

SUBJECT: Request for Approval of Receipt and Issue Procedures, Contract _____

Dear _____:

Within the provisions of FAR 45.505-3, request approval of the attached receipt and issue procedures. This system will be restricted in scope and will apply only to the subject contract for the consumption of materials identified by a discreet task numbered Bill of Materials (BOM). Fabrication tasks under this contract will be developmental in nature and a customized, limited production effort. The materials requirements anticipated involve non-stocked or special items to be assembled as tasked by the contract.

If desired, after your approval of the receipt and issue procedure, a BOM for each task will be provided to your office for review. In the event design changes occur while work is in process, and you have indicated a desire for us to provide a BOM for each task, a modified BOM will be provided to your office at the earliest possible date.

Should you have any questions concerning this correspondence, please contact me at (000) 000-0000.

Very truly yours,

Property Manager

XXX/xxx

Enclosure: as stated

Figure 1 - Sample Approval Request Letter

Receipt and Issue Procedure
Contract _____
Location: _____

Basis for Need:

Items to be fabricated are developmental in nature and will be a direct charge to the contract. The materials will be installed when required (normally within three months of receipt) and will be composed of items normally not stocked by this contract.

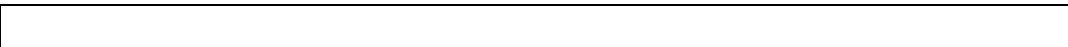
Essential Information:

1. Estimated total value of materials to be procured for each task will be stated on a Bill of Materials (BOM) to be provided (if desired) to the responsible Government Property Administrator in advance of the fabrication start date.
2. The items not consumed in this task will be returned to stock as described in Chapter ____, __ (Company Name) Property Management Manual, and will be documented on Form (Form No.), (Form Title) _____.
3. This procedure will result in a cost avoidance by not incurring personnel costs for the maintenance of material records for non-stocked items in the performance of this contract.
4. No materials classed as sensitive, pilferable or those containing precious metals will be placed on the BOM.
5. Only serviceable materials will be returned to stock and, if not required for additional contractual efforts within twelve months, will be reported as excess to the requirements of the contract.

Procedures:

1. The materials to be managed on a receipt and issue procedure will be identified by a BOM. Each BOM will be identified by a discreet number.
2. Each receipt of materials for this task will be recorded in compliance with the receiving procedure in Chapter ____, __ (Company Name) Property Management Manual.
3. Each issue transaction to work in process will be confirmed by signature of the authorized recipient in the appropriate column of the BOM.

Figure 2 - Sample R&I Procedure (Page 1 of 2)



Receipt and Issue Procedures

Contract _____

Location: _____

Page 2 of 2

4. Upon completion of all issues against the BOM, a permanent completed file will be maintained by the contract program for future audits during the performance period and retained for four years following it.
5. Serviceable residue items will be documented on Form (Form No.), (Form Title) recorded on Stock Accounting Records (Form _____) and placed into secure storage. Further materials management will follow the procedures in Chapter ____, (Company Name) Property Management Manual.
6. The items fabricated for these projects are prototype in nature and may require changes in the BOM. As a change to a BOM occurs, the responsible Government Property Administrator will be provided a revised BOM (if desired).

Figure 3 - Sample R&I Procedure (Page 2 of 2)