

Inventory Management Tantalum Handling & Storage Procedures

- All Tantalum parts/equipment (both new and returned) are to be verified for material of construction before storage. This verification will be done by Maintenance Technical Services (MTS) using the Texas Nuclear Alloy Analyzer. Verification of assemblies (equipment, valves, etc.) will be performed on parts of the assembly accessible without dismantling the item.
- Once positive identification is established, the part/equipment needs to be color coded. Paint blue (Krylon 1901) with white stripe (Krylon 1501) for easy identification. Do not allow paint to contact machine fit surfaces.

Note: It is not practical to paint some items. Examples: 5,000 of 1/2" X 1" bolts; 1/4" X 1/4" key way, etc. In this case, color coding the package will be sufficient. Also, attach a color coded tag with the word Tantalum to or place the tag inside the package.

- All Tantalum parts not restricted by size are to be stored together in a designated locked enclosure.
- All Tantalum parts too large to be placed in this secured area should be stored together in a designated bulk storage rack.
- All Tantalum storage areas will be identified with blue/white stripped colors and signs as necessary to identify that Tantalum is stored there.

Example: "Tantalum Material Of Construction"

Warning: Tantalum is extremely reactive with Caustic. Tantalum at temperatures above 475°F is not good in wet or dry chlorine service.

- No other parts with a different material of construction will be stored with Tantalum.
- The warehouse issuing the Tantalum material will attach a tag to the Tantalum part(s) bag identifying the material of construction as Tantalum.

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Inventory Management Titanium Handling & Storage Procedure, . . .

- All Titanium parts/equipment (both new and returned) are to be verified for material of construction before storage. This verification will be done by Maintenance Technical Services (MTS) using the Texas Nuclear Alloy Analyzer. Verification of assemblies (equipment, valves, etc.) will be performed on parts of the assembly accessible without dismantling the item.
- Once positive identification is established, the part needs to be color coded. Paint plum purple (Krylon 1929) for easy identification. Do not allow paint to contact machine fit surfaces.

Note: It is not practical to paint some items. Examples: 5,000 of 1/2" X 1" bolts; 1/4" X 1/4" key way, etc. In this case, color coding the package will be sufficient. Also, attach a color coded tag with the word Titanium to or place the tag inside the package.

- All Titanium parts not restricted by size are to be stored together in a designated locked enclosure.
- All Titanium parts too large to be placed in this secured area should be stored together in a designated bulk storage rack.
- All Titanium storage areas will be identified with plum purple color and signs as necessary to identify that Titanium is stored there.

Example: "Titanium Material Of Construction"

Warning: Titanium is used in wet chlorine service only. Titanium in dry chlorine service will cause a chemical reaction (fire).

- No other parts with a different material of construction will be stored with Titanium.
- The warehouse issuing the Titanium material will attach a tag to the Titanium part(s) bag identifying the material of construction as Titanium.

LM. Procedure for Receiving, Handling and Storage of Parts Prepared for Chlorine or Oxygen Service

Purpose: To establish minimum requirements for receiving, handling and storage of parts prepared for chlorine or oxygen service.

Chlorine or oxygen service parts are to be free of all traces of organic materials. These parts should never be permitted to come in contact with organic materials, especially thread lubes, oil, grease, asphalt, kerosene, tar or materials that have been contaminated with oil, including oil from the skin. A violent reaction may occur if a contaminated part comes in contact with oxygen/chlorine.

Materials purchased for chlorine or oxygen service are specially cleaned and tested to assure free of contaminants. After testing, these materials are sealed in plastic packaging and labeled for the service. Example: 1) Prepared for oxygen service or cleaned for oxygen service, 2) Prepared for chlorine service or cleaned for chlorine service.

1. Upon receipt of such material, the material is to be inspected to insure the sealed package and labeling is still in tact if not, material is to be returned to the vendor for corrective action.
2. Once assurance is made that the material packaged is sealed and properly labeled, it is to be handled carefully and stored in designated location or delivered to the customer, which ever applies.
3. Material that is stored must again be inspected prior to delivery to customer to insure package sealing and labeling is in tact. If package sealing or labeling is not in tact when removed from storage, the material is not to be delivered to the customer. The material should be returned to the vendor for re-cleaning and certification.

Exception:

In special cases, the customer may have cleaning and testing facilities. In these cases, if the customer is informed that the material is contaminated, he may choose to take delivery of the material and assume responsibility for re-cleaning and testing prior to use.

Note: All involved in the storage of this material must be knowledgeable of this procedure.

Inventory Management Receiving Procedure

All materials will be checked, stored, etc. the same day it is received with the exception of materials arriving after 2:00 p.m. This material is to be checked first thing the next work day. All transactions are to be completed the same day the material is physically moved.

Verifying the receipt and assuring complete accuracy of what was requested, must be finalized ASAP with the following procedure.

Inventory Material:

1. Pull incoming receipt tickets several times per day on set routine.
2. Packing list/ticket must agree with MSMS incoming receipt.
 - A. Material delivered to warehouse will not be picked up until receipt of receiving documentation to verify material and posting. Contact Receiving if there is no documentation with material.
3. Verify amount, description, part number and material of construction by comparing packing slip, parts and requisition. Contact vendor when part number is different than that in MSMS (C11), no part number is available or any other discrepancies that are found.

Note: Description and material of construction verification is very important to minimize a reactive chemical incident. Example: Putting titanium in dry chlorine service will cause a violent reaction (fire).

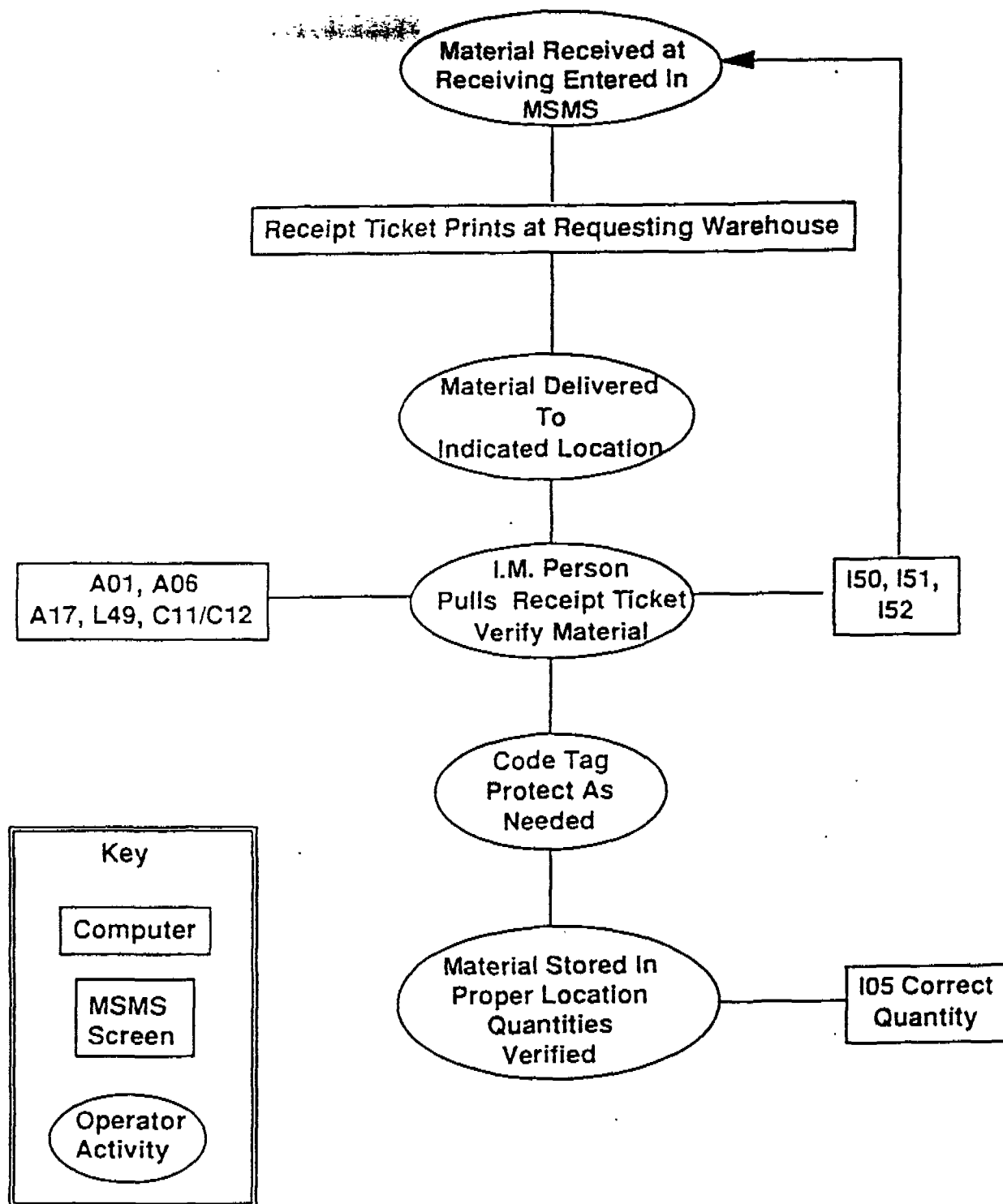
 - A. If any quantity discrepancy, correct with an exception to Receiving and/or a call to the vendor.
 - B. When material is verified to 100% correct, attach verification sticker to front of storage box and to each parts tag. The sticker must be dated and initialized by person doing verification.
4. When the paperwork is completed, store the material.
 - A. Code tag the material as needed.
 - B. Protect/store in assigned bin location.
 - C. Verify that quantities in bin are correct and material matches incoming receipts criteria.

Non-Inventory Material:

1. Verify packing list/ticket, requisition/commitment (P.O.)
A. If any discrepancy, correct with an exception/call to Receiving or a call to the vendor. *ROB AND R.*
2. Notify the customer that the material has been delivered and determine if the material is to be picked up.
3. Tag the material.
 - A. Person responsible for the project
 - B. Date material is received and stored.
 - C. Date of expected use.
 - D. Project/material description.
 - E. Commitment (P.O.) number.
4. Store the material in a designated storage area per warehousemen/customer.

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MRO Inventory Receiving



Procedure To Have Material Verified by MTS

1. Material must be verified upon receipt according to I.M. Receiving Procedures.
2. Call extension 5776 or 8580 for an approved work order.
3. Contact MTS at extension 1548 to notify them that you have a work order to get material verified and that you will be sending the item (s).
4. Stocking warehouse makes arrangements to have item (s) picked up and delivered to MTS. A completed return delivery tag should be attached to the item to expedite return of the item to the Hub.
5. MTS notifies stocking warehouse when item (s) are verified and ready to be returned.
6. Stocking warehouse makes arrangements to have item (s) picked up and returned to them.
7. Item(s) are then placed in the proper designated storage area.

Inventory Management
MSMS Issue Procedure

PURPOSE: Establish a standardized process to requisition material from inventory.

1. Customer requests material with all required information and presents it to I/M Personnel.
2. Requested material will be entered by I/M person for an issue.
 - a. Use IO1 'Requisition' when material has not been removed from the warehouse prior to request.
 - b. Use IO3 'Forced Issue' when the material has been removed from the warehouse.
3. I/M person will routinely remove issue tickets from the printer and use ticket to pull the parts from the storage bins for customer.
4. Verify remaining quantity in stock and compare to computer inventory and adjust missing inventory per the stock take/issue procedure.
5. Verify the item is correct before it is packaged, that is description, code number and quantity.
6. Initiate delivery of material to the customer.
7. Obvious discrepancies will be corrected promptly by the issuing warehouse and any necessary communication made.

Inventory Management Training Process Summary

Inventory Management personnel's training process starts when an employee enters the department. Presently, proficiency testing of these employees will be required for the aspects of their jobs that relates to safety, environmental and industrial hygiene. Other specific job related training is accomplished through group training sessions, on-the-job training with other experienced personnel, coupled with the use of written procedures. Job procedures and IPT Modules are made available to the employee. Also, a list of the training requirements is assembled by the employee's supervisor and presented to the employee.

Employees are to accomplish this training at a pace agreed on by his supervisor. The supervisor monitors the employee's progress. Once the supervisor is convinced that the employee is knowledgeable and/or has demonstrated his skill in the particular training, the supervisor documents the completion of each training topic in the employee's file. Once completion of a training topic is documented, any method used to determine this employee skill level is discarded. Example: Test, record of acceptable demonstration, etc. Documentation of completed training is maintained in the employee's file.

Training on Inventory Management process will be prioritized by the supervisors with input from their employees and the QPT. As identified, this training will be added to the program.

I.M. Procedures for Standardization of Improvement of Processes

I.M. procedures are contained in a single computer. Procedures are available to all employees through use of procedure manuals issued to each area.

Review/Approval:

Each I.M. procedure or revision to an I.M. procedure is drafted by a procedures team or by an employee then submitted to the IMP for approval. The approved draft is distributed to all affected personnel for comment through their supervisor and returned to the IMP for consideration prior to finalization of procedure. The IMP considers all comments and revises as determined then finalizes the procedure. The finalized procedure is distributed to affected personnel.

Training:

Training relative to these procedures, depending on the need, may be classroom or supervisor presented. Any necessary training will occur prior to implementation of change

I.M. Training Process Summary

Safety Training Topic	Group/Personnel Requiring Training	Proficiency Test Y/N		Refresher Freq.	Initial Training Method	Refresher Training Method
		Initial	Refresh.			
HAZCOM	All I.M.	Y	Y	1 Year	Safety Mtg. Review	
Hearing Conservation / S-103	All I.M.	Y	N	2 Years	Safety Mtg. Review	
Respirator / S-102	All I.M.	Y	N	2 Years	Safety Mtg. Review	
Basic Safety	All I.M.	Y	N	5 Years	IPT Module	
HAZMAT Overview	All I.M.	N	N	2 Years	Safety Mtg. Review	
HAZMAT (DOT Regulations)	Rec./Ship. Group	Y	Y	2 Years	Class Room	
Ergonomics	All I.M.	N	N	2 Years	Safety Mtg. Review	
Fire Extinguisher (NHO) / S-404	All I.M.	N	N	1 Year	Safety Mtg. Review	
Lockout/Tagout / USA3 - LAD3	Designated Personnel	Y	Y	3 Years	IPT Module	
Salework Permit / USA4 - LAD4	Designated Personnel	Y	Y	3 Years	IPT Module	
Fork Lift Operators	Whse. Personnel	Y	Y	3 Years	Class Room	
Reactive Chemical	All I.M.	N	N	1 Year	Safety Mtg. Review	
Office Safety	Office Personnel	N	N	2 Years	Safety Mtg. Review	
Receiving, Handling & Storage of Parts Prepared for Oxygen or Chlorine Service	Whse. Personnel	N	N	2 Years	Class Room	
Safe Storage & Handling of Mercury Containing Devices	Whse. Personnel	N	N	2 Years	Class Room	
Safe Assembly of Storage Bins	Whse. Personnel	N	N	2 Years	Class Room	
Safe Use of Rust Proof Coatings	Whse. Personnel	N	N	2 Years	Class Room	
USA1 - LAD1 Overview	All I.M.	N	N	3 Years	Safety Mtg. Review	
USA1 - LAD2 M.O.C. Overview	All I.M.	N	N	3 Years	Safety Mtg. Review	
Responsibilities-Considerations / USA3 - LAD3	All I.M.	N	N	1 Year	Safety Mtg. Review	
Responsibilities-Considerations / USA4 - LAD4	All I.M.	N	N	1 Year	Safety Mtg. Review	
Emergency Systems / S-203	All I.M.	N	N	3 Years	Safety Mtg. Review	
Supervisor's Investigation of Acc./Inc. - S-305	All I.M.	N	N	3 Years	Safety Mtg. Review	
Standard Safety Equipment / S-101	All I.M.	N	N	3 Years	Safety Mtg. Review	
Reporting of Unsafe Prac., Proc. & Inc. / S-304	All I.M.	N	N	3 Years	Safety Mtg. Review	

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