

FOREWORD

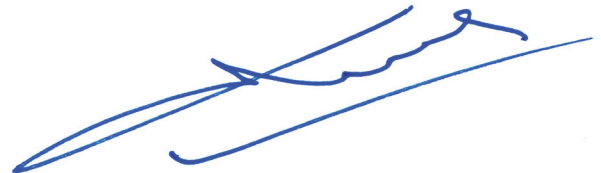
BPC as an asset intensive company has to manage huge inventories every year to meet the requirements of capital, operations and maintenance works. Therefore, the guidelines and procedures for all aspects of inventory management ranging from stores transactions to scientific inventory management as per best fit practices were laid down in Inventory Management Manual 2010 which was approved by BPC Management and Board in 2009. However, with the implementation of ERP System (SAP) from 1st May 2011, the process of managing of BPC's inventory is automated through Materials Management (MM) Module and such processes are not captured in the Inventory Management Manual 2010.

Therefore, BPC has revised the Inventory Management Manual 2010 and have come up with the Inventory Management Manual 2016 in line with SAP ERP (MM Module) in order to integrate the inventory management functions and to serve as a guideline for the management of inventory of BPC.

BPC would like to thank BPC Board Sub-Committee Members Mr. Sonam Lhundrup, Company Secretary and Legal Counsel, DHI, Mr. Karma P Dorji, Chief Engineer, DHPS, MOEA and Mr. Phento Tshering, CFO, Thimphu Division, MOAF for their valuable suggestions, comments, feedback and support without which BPC would not be in the position to bring out this manual. As approved by the BPC Board Sub-Committee in October 2015, the revised Inventory Management Manual 2016 shall be implemented from 1st January 2016. Therefore, it is imperative that every office and employee dealing with the inventories manage the inventories in line with the provision made in this manual.

I would like to place on record the excellent works carried out by staffs of Procurement Services Department especially Mr. Pradeep M. Pradhan, General Manager and Ms. Metog Dema, Sr. Manager to streamline the inventory management functions in line with SAP ERP system through this manual. Appreciation also goes to all the officials of PSD who contributed on the documentation of the process and provided necessary feedbacks while formulating the manual. PSD is also indebted to members of review committee from various department and BPC Management members for valuable suggestions, feedbacks, guidance and contribution in bringing out this manual without which it would not have been possible to bring out this manual.

Tashi Delek



(Gem Tshering)
Managing Director

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CHAPTER 1

INTRODUCTION

1.1 Background

The Inventory Management Manual published in July 2010 was developed to systemize and streamline the Inventory Management functions of the Corporation. In the earlier Manual, the guidelines and procedures for all aspects of inventory management ranging from stores transactions to scientific inventory management practices were documented. However, with the implementation of SAP ERP System in 1st May 2011, the process of managing of BPC's inventory is automated through Materials Management (MM) Module and such processes are not captured in the old Manual. The MM module maps the BPC business process for determination of material requirement, procurement, receipts, issues, transfer posting of materials, valuation of materials and invoice verification.¹

Therefore, BPC has revised 2010 Inventory Manual and have come up with BPC Inventory Management Manual 2016 in line with SAP ERP (MM Module) in order to integrate the inventory management functions and to serve as a guideline for the management of inventory of BPC.

Therefore, the Manual is expected to meet the following broad objectives:

- (i) To have proper inventory planning and control mechanisms.
- (ii) To determine the levels of inventory required.
- (iii) To maintain inventory records on a uniform basis.
- (iv) To ensure systematic receipts, storage, issue and disposal of materials.
- (v) To identify and segregate critical and insurance spares, slow moving, non-moving, and unserviceable inventories.

The management of inventories in BPC shall comply with the provisions and guidelines contained in this Manual and the Manual will be effective from January 1, 2016.

1.2 Amendment, Implementation and Interpretation of the Manual

The policy and guidelines shall be approved by the BPC Board and the process and procedure shall be approved by BPC Management.

The Procurement Services Department (PSD) shall be the custodian and the implementing agency of the Manual. The interpretation of this Manual shall rest with the Management of BPC. Any policy and procedural changes approved by appropriate authority shall be issued as an amendment by PSD. Such amendments shall form an integral part of this Manual.

¹ As per BPC MM Business Blueprint, Wipro Ltd.

CHAPTER 2

MATERIALS REQUISITION PROCESS

2.1 Introduction

A material requisition is a demand or request for materials made by an indenting unit to the purchasing agencies²/stores. In SAP ERP system (herein referred as system), material requisitions are generated under the following categories based on the nature of requirement:

- (i) Planned Purchase Requisition: Material requisition pertaining to regular planned capital works of BPC.
- (ii) Deposit Purchase Requisition: Any material requisitions pertaining to works undertaken by BPC for any outside agency for which funds are received from such agencies.
- (iii) Plant Maintenance Material Purchase Requisition: Materials requisition pertaining to regular operations and maintenance (O&M) works of BPC.
- (iv) Project Works Materials Requisition: Materials requisition pertaining to projects executed by BPC and funded by external agencies.
- (v) Asset Purchase Requisition: Materials requisition pertaining to movable asset³ procurement for the current year for which there is an approved budget.
- (vi) Stock Transfer Requisition (STR): Materials requisition when the request for the materials is placed from one stock holding unit to another stock holding unit after confirming the availability of stock with the issuing stock holding unit.
- (vii) Adhoc Works Materials Requisition⁴: Any other requisitions not covered in the above categories.

2.2 Materials Requisition Policy

- (i) All indenting units shall select appropriate commitment items while generating planned purchase requisition/deposit purchase requisition/plant maintenance material purchase requisition. Indenting units shall select the purchase account commitment item if the purchase requisition is for the current year and statistical commitment item⁵ if the purchase requisition is for the next financial year.

² Purchasing agencies shall mean, in addition to the Procurement Services Department (PSD), those departments/divisions that are engaged in the procurement of Goods as per the provision of BPC Procurement Manual for Goods.

³ Movable asset includes those items that are not kept in the inventory such as computers, communication equipment etc.

⁴ All Adhoc material requisitions need to be approved by the concerned authority as per the delegation of Power before submission to the Procuring Agency.

⁵ Statistical commitment item is a dummy budget/purchase account introduced in the system where actual budget is not allocated. The concept of statistical commitment item is introduced to avoid commitment of the current budget and facilitate advance procurement.

- (ii) All indenting units shall ensure that the requisitions are generated in the system according to the categories prescribed in Clause 2.1 above.
- (iii) All indenting units shall ensure that the quantity indicated for the requisitioned item is after adjusting from their available stock. The adjustments of the buffer stock shall be done by the Procurement Services Department. After completion of the adjustment where applicable, PSD shall inform the concern indenting units to submit the revised materials requisition. During the submission of the revised materials requisition, the concerned indenting units shall ensure to maintain the same requisition number against which the revised requisitions are being submitted.
- (iv) Prior to the submission of the material requisition for plan works (advance procurement), all indenting units shall plan their works as per the investment plan of BPC.

2.3 Responsibility

- (i) The Head of the stockholding unit shall be responsible for ensuring that all requests for materials to the Purchasing Agency or to the other stockholding unit are generated based on the various requisition categories as prescribed in Clause 2.1 within the stipulated timeframe as prescribed in Clause 2.6.
- (ii) The MM end user⁶ of a stockholding unit is responsible for generating material requisitions based on the various requisition categories as prescribed in Clause 2.1 after prior approval from the Head of the stockholding unit.
- (iii) The MM end user of a stockholding unit is responsible for ensuring that the quantity of material requisitioned to the Purchasing Agency for new procurement is after adjustment from the available stock and should take into account the stipulated timeframe as per Clause 2.6.

2.4 Requisition Approving Authority

The approving authority of a material requisition shall be the Head of the stock holding unit.

2.5 Routing of Requisitions

- (i) For new purchases, a stockholding unit shall route all requisitions to the Purchasing Agency except for materials that can be directly procured by unit as per BPC Procurement Manual and the financial delegation of power.
- (ii) For inter-unit transfer of materials, indenting stockholding unit shall generate stock transfer requisition directly to the issuing stockholding unit after confirming the availability of the stock.
- (iii) For materials required at site, the site supervisor shall generate material reservation ⁷ through project system module/plant maintenance module as per the work requirement to the stockholding unit/micro store.

⁶ Persons authorized to carry out Material Management (MM) module transaction in system.

⁷ Material reservation is an internal document generated from System and it contains list of materials assigned to work related cost element.

2.6 Requisition Deadline

The deadline for the submission of various requisitions by a stockholding unit is indicated in the following table. Any material requisition received by the Purchasing Agency after the deadline shall be processed only in the next procurement cycle.

(i) Requisition to be submitted to the Procurement Services Department

Sl.#	Requisitions	Submission Deadline
1	Planned Purchase Requisition and Plant Maintenance Purchase Requisition	30 th of April (current year).
2	Project Works Materials Requisition and Deposit Purchase Requisition	As per the requirement
3	Asset Purchase Requisition	As required by PSD after the approval of the annual budget for the current year.
4	Revised Material Requisition and Adhoc requisition	As required by PSD where ever applicable after adjustment.

(ii) Requisition placed from a Stockholding Unit to another Stockholding Unit.

Based on the requirement of a stockholding unit, a unit may place stock transfer requisition to another stockholding unit as and when required after the confirmation of availability of materials.

(iii) Requisition Placed from Work Site to Micro Store.

Based on the requirement at work site, the site supervisor shall generate material reservation through project system module/plant maintenance module to micro store as and when required.

2.7 Materials Requisition Procedure

2.7.1 Identification of Requirement of Materials

The Head of the stockholding unit shall identify whether the requirement of materials is for the current year for which there is an approved budget or for the next financial year (advance procurement) for which there is no approved budget.

2.7.2 Requirement of materials is for the next financial year (advance procurement).

If the requirement of the materials is for the next financial year (advance procurement) for which there is no approved budget, the Head of the stockholding unit shall ensure that prior approval for the proposed planned/O&M works are obtained from their concern Head of the Departments/ Wings before submission of material requisitions to the Procurement Services Department.

2.7.3 Requirement of materials is for the current year for which there is an approved budget.

If the requirement of the materials is for the current year for which there is an approved budget, the following procedure shall be followed;

After identifying the nature of work heads (planned/O&M/deposit/projects/any other works), the stockholding unit shall identify whether the required material is a stock or non-stock item. A material is classified as a stock item if it is usually kept in inventory in micro store (such as poles, conductors, cables etc) and as non-stock item if not kept in an inventory both in the regional and micro stores (such as movable asset and vehicle spare parts). Based on the classification of the requirement, the following procedure shall be followed:

2.7.3.1 Requirement is of Non-Stock Item⁸

If the required material is classified as non-stock item, the stockholding unit shall place asset purchase requisition to the Purchasing Agency for movable assets except for materials where the concerned stockholding unit can directly procure such as vehicle spare parts.

2.7.3.2 Requirement is of Stock Item⁹

If the required material is classified as stock item, the concerned stockholding unit shall place requisition to the micro store. The micro store shall then check whether the material is in stock and is in sufficient quantity and the following procedures shall be followed:

- (a) Required Material is available in sufficient quantity
If the required material is available in sufficient quantity, the micro store of a stockholding unit shall issue the material against the work head by generating Good Issue Note (GIN).
- (b) Required Material is available but not sufficient
If the required material is available in stock but the quantity available is not sufficient, then the micro store shall issue the quantity available against the work head by generating GIN and for the balance items, the following procedure shall be followed:
 - (i) The Store In-charge shall check the availability of the materials in other stock holding units and generate stock transfer requisition based on the availability of the materials to the issuing stock holding units or;
 - (ii) The Store In-charge shall generate relevant material requisition to the Purchasing Agency for additional requirement.
- (c) Required Material is not available
If the required material is not available, the stock holding unit shall generate relevant material requisition to the Purchasing Agency.

⁸ A material is classified as non-stock items if it is not kept in an inventory both in the regional stores and micro stores (such as movable asset and vehicle spare parts).

⁹ A material is classified as stock items if it is usually kept in inventory in both the regional stores and micro stores.

CHAPTER 3

PROCUREMENT

3.1 Procurement Function

The procurement function shall normally include the following:

- (i) Receiving purchase requisitions from all Departments/Divisions/Units.
- (ii) Consolidation of the approved requisitions into Bill of Quantities (BOQ) after stock adjustments.
- (iii) Invitation of quotation from suppliers (as per the provision laid down in the BPC Procurement Manual).
- (iv) Sale of tender, receipt of tender and tender opening.
- (v) Analyzing/Evaluating bids technically and financially, scrutinizing and compiling data for presentation to different levels of tender committee (TC), assisting TC in negotiations wherever required and in preparation of tender committee recommendations (TCR).
- (vi) Issuing letter of intent/notification of award.
- (vii) Issuing purchase orders/preparation of contract documents.
- (viii) Processing of import license and Tax Exemption Certificate for tax exempted goods.
- (ix) Establishment of Letter of Credit (LC) if applicable.
- (x) Follow up for ensuring delivery as per schedule.
- (xi) Inspection of materials at manufacturer's premises.
- (xii) Interfacing with suppliers in case of rejections on any other post contractual issues.
- (xiii) Maintaining approved supplier list and vendor rating.
- (xiv) Keeping abreast of price trends, delivery methods, and charges.
- (xv) Handling of Earnest Money Deposit/Security Deposit and their refund, processing of supplier's bills etc.

3.2 Procurement Process

The procurement of any materials shall be governed by BPC Procurement Manual.

CHAPTER 4

MATERIALS RECEIPT PROCESS

4.1 Introduction

Materials may be received by any stock holding units either from vendor or from other stockholding units within BPC. At the time of the receipt of materials, the amount of recording and checking depends greatly on the nature of goods. It is desirable to avoid a lot of paperwork or data processing but this must be done without undue risk. There is a possibility of theft, fraud and mistake, which is always present during materials receipt. Similarly, the extent of physical examination, weighing, counting etc., of goods received should be arranged in the most economical way to avoid unnecessary delay or expenses.

4.2 Materials Receipt Policy

- (i) Receiving is the acceptance of ordered materials into the store. Incoming materials without exception must be inspected by the Store In-charge and if required with the involvement of any authorized representative of the user department.
- (ii) The relevant stock holding unit shall receive materials from the vendors based on the contract/purchase order placed by the Purchasing Agency after checking and recording the quality inspection parameters as prescribed in Quality Management Module. The Purchasing Agency shall ensure that a copy of contract/purchase order is scanned and uploaded in the system. The micro store shall receive materials based on the relevant materials requisition generated to Purchasing Agencies and from other stockholding unit based on the stock transfer requisition.
- (iii) The Store In-charge shall physically identify, check, sort, count and carry out tests where necessary with a view to establish the exact description, size, part number, weight, quality and quantity of the materials received. Only the materials which pass the inspection shall be accepted into the store.

4.3 Responsibility

- (i) The Head of a stockholding unit has the overall responsibility that materials are properly received in the store premises.
- (ii) The concerned Store In-charge is responsible that the materials accepted are as per the specifications and is visually and physically inspected prior to receipt.
- (iii) The concerned Store In-charge is responsible for maintaining proper documentation and ensuring all materials received are accompanied by supplier delivery notes if received from the vendors and GIN if received from other stock holding units.
- (iv) The concerned Store In-charge is responsible to ensure that the unloading of consignment at store is carried out properly to prevent damages.

4.4 Procedure

The following procedure shall be observed both by Regional Stores and Micro Stores in the receipt of materials from both vendors and from any other stockholding unit.

4.4.1 Check-In at Security Gate

All inbound vehicles to deliver materials at the store must declare and enter the following relevant information at the security gate before entry into the store:

- (i) Date of entry.
- (ii) Name of the vendor and/or consignor.
- (iii) Delivery Note/GIN.
- (iv) Vehicle number, Driver's name and ID No.
- (v) Declaration of excess materials if any from the vendors.

4.4.2 Unloading of the Consignment

Materials shall be unloaded in the store yard/designated premises. The Store In-charge shall verify the declared materials against the delivery note/GIN for any excess and/or shortage of materials.

4.4.3 Receiving materials from the vendors

- (i) The concerned Store In-charge shall receive the materials from the vendors with reference to the relevant purchase order/contract and the supplier delivery note. As per the quantity delivered, the Store In-charge shall generate Good Receipt Note (GRN) after posting to the quality inspection stock in the system.
- (ii) Inspection at Store Premises- After posting to the quality inspection stock in the system, the materials shall then be subjected to inspection. The inspection shall be carried out by the Store In-charge /store representative with the vendors/vendor's representatives and if required in consultation with the authorized representative of the user department. The person responsible for inspection shall count, sort, weigh, measure, and carry out good receipt inspection as per the inspection parameters defined in Quality Management (QM) Module. After completions of the good receipt inspection, the result of the inspection parameters shall be recorded in the QM Module.

During the time of inspection, the Store In-charge shall take the following course of actions if there is any excess/shortage of materials:

- (a) Excess Supply: The vendor shall be asked to lift the excess materials from the store premises. In case the vendor does not lift the excess materials within thirty (30) working days, then the materials shall be taken into stock by generating GRN and the rate of the excess materials shall be weighted moving average price generated by the system. However, the vendor shall not be paid for the excess materials.

- (b) Short Supply: In case of shortage of materials, the vendor shall be asked to supply the balance materials. If the short supply is within the tolerance limit¹⁰ then the payment shall be made as per the actual supply and the contract shall be closed.
- (iii) Acceptance of Materials -For materials which have been inspected and found to be in order as per the inspection parameters shall be taken into stock by generating good acceptance note in the system to transfer materials from quality inspection stock to normal stock which can be further issued to the users.

4.4.4 Receiving Materials from the Regional Stores

For the materials received at the Micro Store from the Regional Stores, the concerned Store In-charge shall inspect the materials against the materials requisition for quantity, specifications, and any physical damages in transit.

4.4.5 The concerned Store In-charge after receiving the materials from vendors/regional stores shall generate GRN latest by 15 working days and accordingly update the bin card. The GRN shall be signed by all signatory authority and shall be made into two copies to be used for the following purpose:

- (a) The first copy shall be given to the Finance Section along with the invoices.
- (b) The second copy shall be retained by the Store In-charge for record and reference.

4.4.6 Rejection of Materials supplied by vendors/regional stores

During the receipt of the materials, any materials found to be physically damaged shall be rejected and returned to the vendors/consignor immediately without generating GRN through manual Material Rejection Note (MRN) as per the format indicated in Form-1. However, for those materials which have been subjected to good receipt inspection and rejected as per the inspection parameters recorded shall be returned by generating Materials Rejection Note from the system. The MRN shall be signed by all the signatory authority and shall be made into two copies to be used for the following purpose:

- (a) The first copy shall accompany the materials being returned.
- (b) The second copy to be retained by the Store In-charge for record and reference.

For replacement of materials from the vendors, the receipt procedure as per Clause 4.4.3 shall be followed.

4.4.7 Return of Materials from Work Sites.

- (i) Return of balance materials from work sites.

The balance materials (after completing the handing/taking of the work along with material

¹⁰ Tolerance limit as be as per the international standards/IS for those items whose measurement are in kgs, meters, etc.

reconciliation with the contractor) shall be returned to the Micro Store from the work sites by the concerned supervisor/contractor within sixty (60) working days. The concerned supervisor shall return the balance materials from the site by generating return material reservation from the relevant project system/maintenance module. The Micro Store shall receive the balance materials by generating GRN (rate shall be weighted moving average price generated by the system during the receipt while receiving the of materials by Micro Store) with reference to the return materials reservation. The return materials shall then be posted to the relevant stock type in the system.

(ii) Return of defective materials from work site.

The concerned site supervisor shall return defective materials to the micro stores by generating materials return reservation after activating defect materials in the system. The return materials shall then be posted to the defective storage location in the system.

(iii) The concerned Store In-charge shall receive balance/defective materials from work site by generating GRN. The GRN shall be signed by all the signatory authority and shall be made into two copies to be used for the following purposes:

- (a) The first copy shall be provided to the supervisor/contractor.
- (b) The second copy shall be retained by the Store In-charge for record and reference.

4.4.8 Return of Materials from Micro Store to Regional Stores

The micro store may return unutilized materials to the regional store by generating stock transfer order (STO)¹¹ to regional store. Based on the STO the concerned micro store shall generate GIN and accordingly issue the materials to the regional store. At the regional store, the materials shall be received by generating GRN against that STO. The GIN shall be signed by all the signatory authority and shall be made into two copies to be used for the following purposes:

- (a) The first copy shall be provided to the regional store division.
- (b) The second copy to be retained by the Store In-charge for record and reference.

4.4.9 Payment

The payment shall be processed as per Clause 8.3.1 of the Financial Rules and Regulations of the Corporation.

¹¹ Stock Transfer Order is an approval document generated in the system with reference to Stock Transfer Requisition for transferring of material between micro stores & regional stores and within micro stores & regional stores.

CHAPTER 5

WAREHOUSE MANAGEMENT

5.1 Introduction

The warehouse/store plays an essential role for the storage and protection of the goods until they are needed. Efficient warehouse management is essential to maximize productivity and minimize costs through optimal usage of space and effective use of labor and equipment.

With the introduction of Warehouse Management (WM) Module in Regional Stores Division, Stocks are controlled and managed at storage bin levels¹². The WM Module keeps track of the material movement in and out of the storage bin level and the balance stock in the warehouse/stores. In the micro stores, stock balances are maintained through Inventory Management (IM) module where the material movements in and out of the store are controlled at storage location level.¹³

5.2 Policy

- (i) To provide timely issue of materials.
- (ii) To keep track of the materials for ease of accessibility so that they can be located easily.
- (iii) To maintain proper record and documentation.
- (iv) To maintain proper physical layout of the warehouse/store.
- (v) To ensure safety and security of the warehouse/store.

5.3 Responsibility

- (i) The Head of a stockholding unit has the overall responsibility for proper warehouse management.
- (ii) The concerned Store In-charge has the overall responsibility for proper storage and protection of the materials under his/her custody.
- (iii) The concerned Store In-charge is also responsible for ensuring that the materials are properly arranged and proper housekeeping is maintained at all times.

5.4 Storage of Materials

Storage is the part of warehouse/store facility where materials are physically located. There are numerous storage modes in a warehouse /store. Materials may be floor stored, solid stacked, in racks, and in open yard. Small parts or components may be stored in special bins, on shelves and in cupboards.

¹² The storage bin is the smallest available unit of space in a warehouse. The storage bin therefore describes the position in the warehouse where the goods are or can be stored.

¹³ Storage Location is the place where stock is physically kept such as Regional Stores/micro stores.

The essentials requirement of storage is as follows:

- (i) An item can be located when required.
- (ii) Materials should be stored in such a way that it is possible to issue the oldest stock first.
- (iii) The item should be maintained in good condition.
- (iv) The materials handling equipment should be available and have easy access to the materials.

5.4.1 Storage Objectives

The following shall be the storage objectives of any warehouse/store:

- (i) To maximize the use of space and storage facilities of the warehouse/store with adequate provisions for the movement of personnel and equipment.
- (ii) To ensure that all materials are readily accessible.
- (iii) To protect stocks against damage, deterioration, unauthorized usage and theft.
- (iv) To ensure that proper housekeeping is being done.

5.4.2 Storage Guidelines

The following are the broad guidelines of storage of materials in a warehouse/store:

- (i) Materials should be stored by types and its accessories.
- (ii) Fast moving materials should be stored near the issuing place in order to simplify and quicken issuing process.
- (iii) Slow and non moving materials, and light and easy to handle materials should be stored in further away from the issuing place.
- (iv) When allocating storage space, consideration should be given to size, length, width, and volume of individual materials, characteristics of the stocks, such as, ease to get damaged, flammability, hazardousness and fragility.
- (v) The storage buildings and facilities should be clean and tidy at all times and the materials properly arranged.
- (vi) Shelves, racks and bins should be neatly and orderly arranged with labels.
- (vii) Materials should be easily identifiable and located to quicken the process of issue and storage. The warehouse should be equipped with adequate fire fighting equipment.
- (viii) The warehouse/store must be securely locked when staffs are not in attendance. The windows and doors must be capably and securely fitted with iron bars and expanded metals.
- (ix) Sequential numbering of warehouses/store, warehouse sections and sub-sections, shelves, racks, bins, and storage records should be followed.
- (x) All the stockholding unit shall segregate their stock into plan works materials and O&M materials in the system. The segregation of stocks will enable PSD to have proper inventory

planning and control mechanism through material adjustment of the buffer stock from all the micro stores

5.5 Documentation

Adequate and timely record-keeping is required for proper stock-control. The records maintained should keep track of the movement of stocks in and out of the storage areas and the balance stock remaining in the warehouse/store.

5.5.1 Stock Bin Card

- (i) The Store In-charge shall maintain a stock bin card for individual stock keeping unit (SKU) for all materials under his jurisdiction. Stock Bin Card (Form-2) contains information such as item code, item description, records for receipt, issue and closing balance of an SKU and should be signed by the concerned Store In-charge after each transaction.
- (ii) The purpose of maintaining a stock bin card is to know at a glance the quantity of stock keeping unit (SKU) available in a shelf, rack or in a particular location.
- (iii) For materials stored inside the store/warehouse, the bin card shall be placed on the shelf/rack where the SKU is stored. For SKUs stored in an open yard, an item tag is placed in the location of the storage of that SKU but the actual bin card shall be maintained in a file.
- (iv) The concerned Store In-charge shall be responsible for updating the stock bin card immediately after the transaction of a SKU.

5.6 Warehouse Safety and Security

A safe, orderly, and efficient warehouse is a key to successful operation. With numerous activities occurring in a warehouse, there is potential hazard for accidents so it is crucial to pay close attention to tasks and equipments that could potentially cause accidents. In the operation of warehouse some generic safety guidelines and precautions¹⁴ have been highlighted to be followed in warehouse/store.

5.6.1 Forklifts/Materials Handling Equipment

Forklifts and material handling equipment come in various types and sizes to make job easier. However, many forklifts weigh as much as or more than an automobile and are designed to move heavy and/or bulky material efficiently. If they are used improperly, forklifts can become a danger in the warehouse. When using forklifts and material handling equipment, the following precautions should be taken:

- (i) Train and evaluate all operators to ensure that they can operate forklifts safely.
- (ii) Do not allow anyone under 18 years old to operate a forklift.
- (iii) Properly maintain haulage equipment, including tires.
- (iv) Before using a forklift, examine it for hazardous conditions which would make it unsafe for operation.

¹⁴ Referenced from the website of Occupational Safety and Health Administration, US Department of Labor, <http://www.osha.gov>.

- (v) Follow safe procedures for picking up, putting down and stacking loads.
- (vi) Drive safely, never exceeding 5 km per hour and slow down in congested areas or those with slippery surfaces.
- (vii) Ensure that the operator wears Personal Protective Equipment and seatbelt installed by the manufacturer.
- (viii) Never drive up to a person standing in front of a fixed object such as wall or stacked materials.
- (ix) Prohibit stunt driving and horseplay.
- (x) Do not handle loads that are heavier than the weight capacity of the forklift.
- (xi) Maintain sufficiently safe clearances for aisles and at loading docks or passages where forklifts are used.
- (xii) Ensure adequate ventilation either by opened doors/windows or using a ventilation system to provide enough fresh air to keep concentrations of noxious gases from engine exhaust below acceptable limits.
- (xiii) Provide covers and/or guardrails to protect workers from the hazards of open pits, tanks, vats and ditches.
- (xiv) Clearly mark aisles and passageways, including doorway and loading dock areas, and keep it clear at all times.
- (xv) Stay out of the forklift's path. Do not assume that the forklift operator can see you or react in time to stop.
- (xvi) Take caution when emerging from aisles, doorways, offices or other areas that create blind spots for forklifts. Make your presence known.
- (xvii) Avoid working over skids and pallets. Keep empty pallets stacked in flat, stable piles – never on end.
- (xviii) Report unsafe conditions or behavior to a supervisor immediately.
- (xix) Train employees on the hazards associated with combustion byproducts of forklift operation, such as carbon monoxide.

5.6.2 Manual Lifting

Despite advances that make warehouse safer and more efficient, some materials must still be moved by hand. When done improperly, injuries can result. These injuries can affect employees for their rest of lives. When manually moving and handling materials, the following precautions should be taken:

- (i) Use your legs and keep your back in its natural position when lifting.
- (ii) Test the load to be lifted. Get help or use appropriate tackles if it is too heavy or bulky to be lifted safely.
- (iii) Lift cartons by grasping opposite top and bottom corners of the container.
- (iv) Don't twist your back while carrying a load. Shift your feet and use small steps in the direction you want to turn. Use handling devices to move barrels and drums.

- (v) Keep floors clean and free of slip and trip hazards.

5.6.3 Chemical Hazards

Improper use and storage of chemicals can lead to serious personal injury or fire. When working with chemicals, the following precautions need to be taken:

- (i) Have material safety data sheets (MSDS) readily available for all chemicals used and stored.
- (ii) Be familiar with all chemicals stored, including physical and chemical properties, storage requirements, use and first aid procedures.
- (iii) Use proper personal protective equipment (PPE) when handling chemicals.
- (iv) Be sure that all chemicals are stored according to manufacturer's recommendations.

5.6.4 Fall Hazards

Falls in a warehouse at floor level or higher, cause numerous injuries. To reduce fall hazards, the following precautions need to be taken:

- (i) Access racks and shelves above floor level with portable stairs, ladders or properly equipped lifting devices.
- (ii) Chain off, rope off or otherwise block exposed or open loading dock doors and areas that employees could slip, trip or fall.
- (iii) Keep floors and aisles clear of clutter, electrical cords, hoses, spills and other hazards that could cause employee to slip, trip, or fall.
- (iv) When accessing racks or shelves above floor level and using an order picker or similar machine, fall protection must be used.

5.6.5 Mobile Crane

Fatalities and serious injuries can occur if cranes are not inspected and used properly. Many fatalities can occur when the crane boom, load line or load contacts power lines and shorts electricity to ground. Other incidents happen when workers are struck by the load, are caught inside the swing radius of fail to assemble/disassemble the crane properly:

- (i) Cranes are to be operated only by qualified and trained personnel.
- (ii) A designated competent personnel must inspect the crane and all crane controls before use.
- (iii) Be sure the crane is on a firm/stable surface and level.
- (iv) During assembly/disassembly do not unlock or remove pins unless sections are blocked and secure (stable).
- (v) Fully extended outriggers and barricade accessible areas inside the crane's swing radius.
- (vi) Watch for overhead electric power lines and maintain at least 10-foot safe working clearance

from the lines.

- (vii) Inspect all rigging prior to use; do not wrap hoist lines around the load.
- (viii) Be sure to use the correct load chart for the crane's current configuration and setup, the load weight and lift path.
- (ix) Do not exceed the load chart capacity while making lifts.
- (x) Raise load a few inches, hold, verify capacity/balance, and test brake system before delivering load.
- (xi) Do not move load over workers.
- (xii) Be sure to follow signals and manufacturer instructions while operating cranes.

5.6.6 Portable Safety Ladder

Falls from portable ladders (step, straight, combination and extension) are one of the leading causes of occupational fatalities and injuries.

- (i) Read and follow all labels/markings on the ladder.
- (ii) Avoid electrical hazards – look for overhead power lines before handling a ladder. Avoid using a metal ladder near power lines or exposed energized electrical equipment.
- (iii) Always inspect the ladder prior to using it. If the ladder is damaged, it must be removed from service and tagged until repaired or discarded.
- (iv) Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact on the ladder when climbing. Keep your body near the middle of the step and always face the ladder while climbing.
- (v) Ladders must be free of any slippery material on the rungs, steps or feet.
- (vi) Do not use a self-supporting ladder (e.g., step ladder) as a single ladder or in partially closed position.
- (vii) Do not use the top step/rung of a ladder as a step/rung unless it was designed for that purpose.
- (viii) Use a ladder only on a stable and level surface, unless it has been secured (top or bottom) to prevent displacement.
- (ix) Do not place ladder on boxes, barrels or other unstable bases to obtain additional height.
- (x) Do not move or shift a ladder while a person or equipment is on the ladder.
- (xi) An extension or straight ladder used to access an elevated surface must extend at least 3 feet above the point of the support. Do not stand on the three top rungs of a straight, single or extension ladder.
- (xii) The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface.
- (xiii) A ladder placed in any location where it can be displaced by other work activities must be secured to prevent displacement or a barricade must be erected to keep traffic away from the ladder.

- (xiv) Be sure that all locks on an extension ladder are properly engaged.
- (xv) Do not exceed the maximum load rating of a ladder; be aware of the ladder's load rating and of the weight it is supporting, including the weight of any tools or equipment.

5.6.7 Fire/Medical/Emergency Hazards

Have an emergency plan that describes what is expected of employees in the event of an emergency. Ensure that all employees are aware of:

- (i) How and when to call emergency personnel.
- (ii) Location and use of fire extinguishers and other emergency equipment, and who is trained to use them and when.

5.6.8 Safety Rules and Management System of the Corporation

In addition to the above warehouse safety guidelines and precautions, all personnel involved in stores operations must follow the safety rules and management system of the corporation as issued by the Safety Inspection and Compliance division of the corporation from time to time.

5.7 Warehouse Security

Stocks in the form of materials, equipment, machinery and others represent a major part of the corporation's resources. Therefore, it is important to protect the materials against pilferage, fraud and damage.

The stockholding unit should adopt a warehouse security policy giving due regard to the following warehouse security parameters.

5.7.1 Physical Security

Physical security includes security measures that monitor and control the warehouse's exterior and interior perimeters. The security In-charge and the head of the stockholding unit should ensure the following:

- i) Periodic inspection of the infrastructure to assure integrity of security measures;
- ii) Locking devices on external and internal doors, windows, gates and fences must be provided;
- iii) Perimeter fencing of sufficient height that encloses the yard and entire area where materials are held to impede entrance and exit;
- iv) Gates or doors through which vehicles or personnel enter or exit should be manned or under observation by security personnel;
- v) Trash must be removed under a controlled process from sites/areas using visual inspection and ensure that trash bins/containers are empty when put into service;

- vi) Segregation and marking of high value and dangerous materials within the warehouse by a safe, vault, caged or otherwise fenced in-area;
- vii) Lighting on the perimeter of a facility to illuminate loading/unloading areas and provide light;
- viii) Private passenger vehicles should be prohibited from parking in store yard and stores premises;
- ix) Lock and key control;
- x) Access of private vehicles into store premises should be controlled by a gate pass.

5.7.2 Procedural Security

The security In-charge and the Head of the stockholding unit shall adopt the following security measures:

- i) Verify the identity and authority of the carrier requesting delivery of materials prior to the release of materials;
- ii) Record and verify introduction and removal of goods into and out of the warehouse under the supervision of designated security personnel;
- iii) Random, unannounced security assessments;
- iv) Inspection of persons and packages;
- v) Additional security procedures for high value goods;
- vi) Written and verifiable security procedures.

5.7.3 Corporate Security Standard Operating Procedure (SOP)

In addition to the above security guidelines, all personnel entrusted with the management and operations of warehouse/stores must follow the appropriate security SOP issued by Security and Fire Services Bureau, BPC.

5.7.4 Education and Training Awareness

The Head of the stockholding unit shall conduct awareness programs to educate and to communicate safety, security policies and standards to employees, including consequences of noncompliance and incentives for those individuals or employees reporting suspicious activities.

5.8 SAP Warehouse Management procedure at Regional Stores

After completing the receiving process as per Clause 4.4.3 and 4.4.8, the concern store keeper shall carry out the following transaction in the WM module:

5.8.1 Put away process

Put away is the process of transferring materials from the storage location to the storage bin through WM module. The concerned store keeper shall generate transfer order¹⁵ with reference to the transfer requirement¹⁶ specified in GRN while receiving the materials from the supplier/micro stores. The materials shall then be posted to the respective storage bin by confirming the transfer order in the system.

5.8.2 Stock removal process

Stock removal is the process of issuing the materials from the storage bin. The concerned store keeper shall generate transfer order with reference to transfer requirement specified in GIN while issuing the materials. The materials shall then be removed from respective storage bin by confirming the transfer order in the system.

¹⁵ A transfer order is a document used in the Warehouse Management (WM) system and contains all the information needed to carry out the physical movement of material into the warehouse, out of the warehouse or from one storage bin to another within the warehouse. When transfer order is confirmed, it indicates that the materials have arrived at the intended destination.

¹⁶ A transfer requirement is a document that is used to plan and initiate stock movements using the WM system. A transfer requirement is used to pass information about stock movements that are posted in Inventory Management to WM and to start stock movements within WM (storage BIN to storage BIN) or to initiate the issue of material to other SAP modules.

CHAPTER 6

INVENTORY MANAGEMENT

6.1 Introduction

Inventories are current assets in the form of materials or supplies to be consumed in the rendering of services, construction of capital assets and for maintenance works. For the corporation, inventories represent almost 70-80% of the total value of capital works. Classification and managing of inventories are vital to decide the importance of individual items and how to control and manage.

6.2 Classification of Inventories

Based on functionality and nature of usage, the inventories held by the BPC are classified under the following Material groups:

Material group code	Material group description	Material group code	Material group description
0001	Pole & Pole Fitting	0002	Conductors
0003	Copper Cables	0004	Aluminum Cable
0005	Disc Insulator	0006	Pin insulator
0007	Transformer Bushing	0008	Trust/Post Insulator
0009	Shackle Insulator	0010	Guy Insulator
0011	Lightning Arrester	0012	Dist. Transformer
0013	Inst. Transformer	0014	HT Energy Meter
0015	LV Energy Meter	0016	Switching Equipment
0017	Fuse	0018	Line Materials
0019	Chemi, Insulat,lubri	0020	ABC Fitting
0021	OH Conductor Fitting	0022	MCCB
0023	VCB	0024	Jointing Kit
0025	Luminaries & Accessories	0026	Miscellaneous –MC
0026	Miscellaneous -MC	0027	Uniform – UF
0028	DG Spares Parts	0029	Mini/Micro Hydel SP
0030	Transformer Spares	0031	Tower Parts
0032	Line Fittings	0033	Power Transformer
0034	SF6 Circuit Breaker	0035	Isolator
0036	Current Transformer	0037	Potential TRF
0038	Capacitance Volt TRF	0039	Power Line Carrier
0040	Control Panel Relay	0041	Control Panel Meter
0042	Control Panel Access	0043	Station Battery

0044	Machine	0045	SCADA
0046	Switch Yard Hardware	0047	Air Conditioner
0048	Tools and Plants	0049	Office Equipment
0050	Computer & DP Unit	0051	Vehicle – VH
0052	Furniture	0053	Telecom. Equipment
0054	Firefighting Equip.	0055	Land
0056	Building	0057	Optical Fibre Ground
0058	Air Circuit Breaker	0059	Services
0060	AAAC Fitting	0061	Power
0062	Panel	0063	ADSS Material
0064	Machinery Spares	0065	Office Stationeries
0066	Software	0067	Disaster Rescue Eqpt

However, the above classification may change in the SAP system over time based on the functionality of the goods.

6.3 Codification of inventories

6.3.1 Objectives

The main objectives of codification are:

- (i) To standardize item description and nomenclature to avoid ambiguity.
- (ii) To classify the items on functional basis so that one material is kept under one material group.
- (iii) To bring together the items according to their degree of similarity so as to reveal and suggest the availability of suitable substitutes.

6.3.2 Responsibility

The Procurement Services Department shall be the sole authority for generating materials number for the materials through the system. Any new additional material procured by the purchasing agencies shall be issued to a stockholding unit only after generating the material number by Procurement Services Department.

6.3.3 Material Numbering

Every material number consists of seven (7) numeric characters which are generated internally from the system according to the material group. This material number uniquely identifies the materials in the material master record. For example, material number for Steel Tubular Poles-9 m long is generated from the system as follows:

Sl.#	Material Type	Material Group	Material Number	Material Description
1	Electrical	Poles & Fittings	0000527	Steel Tubular Poles 9 m long.

However, for the purpose of procurement, the materials have been grouped under the following categories as per the existing Procurement Manual of the Corporation:

(i) Miscellaneous

These are the materials with low cost and low risk vulnerability. Some of the items are low cost stationary items, vehicle spare parts, and uniforms that are not critical to the core operations of the Corporation and are readily available in the local market.

(ii) Bulk Tender Items

These are the materials with relatively high cost and low risk because of bulk requirements. These include distribution items and substation items which can be planned ahead for capital works, bulk civil items like MS angles, bricks, rods, etc.

(iii) Strategic Critical

These are the materials with high cost and high risk as they are critical to the operations of the company. These materials require long lead-time and extensive manufacturing process. These shall include critical equipment for transformers, generators, turbines, relays and panels.

(iv) Strategic Security

These are the materials with low cost and high risk. These are critical spare parts for equipment and instruments already installed and needs to be maintained to ensure uninterrupted flow of power.

6.4 Inventory Control

The control of inventory is exercised by controlling each stock keeping unit. The main objectives of inventory control are to achieve smooth flow of materials at minimum cost and maximum efficiency. The minimum level of inventory for stock item (except transformer) that each stock holding unit shall maintain is 3.33% of the total assets value of the stock holding unit while that of the Transformers shall be 5% of the total assets value.

The techniques to be applied for control of inventory are as follows:

(i) ABC Analysis

(ii) Periodic physical inventory verification

(iii) Review of Slow and Non Moving Items

6.4.1 ABC Analysis

The ABC analysis exercise discriminating control over different items of stores classified on the basis of consumption or usage. All items shall be divided into three categories according to their consumption value.

- (i) 'A' category of items shall consist of about 10% to 15% of the total items handled by the stores comprising about 70% to 80% of inventory value.
- (ii) 'B' category of items is relatively less important and consists of 15% to 20% of the items handled by the stores comprising about 15% to 20% of the inventory value.
- (iii) 'C' category of items do not require much investment and the items comprise about 5% to 10% of the total inventory value but it constitutes about 65% to 80% of the total items handled by stores.

6.4.1.1 Control based on ABC Classification

- (i) 'A' category items are identified as high priority items for inventory control. Tight control needs to be exercised through proper and accurate recordkeeping, conducting half-yearly and annual physical verification.
- (ii) 'B' category items are identified as medium priority items for inventory control as the amount of investment involved is moderate. Normal control need to be exercised with good recordkeeping, conducting annual physical verification.
- (iii) 'C' category items are identified as lowest priority items for inventory control. Normal control need to be exercised with good recordkeeping, conducting annual physical verification.

6.4.2 Periodic physical inventory verification

The procedure for the periodic physical inventory verification is dealt separately and elaborated in Chapter 8.

6.4.3 Review of Slow and Non Moving Items

The procedure for the review of slow and non-moving items is dealt separately and elaborated in Chapter 9.

6.5 Inventory Valuation used by BPC

The Corporation at present is using the Weighted Moving Average Price Method of Inventory Valuation. Depending upon the business requirements of the Corporation, other methods of inventory valuation can be adopted with the prior approval of the competent authority.

In the weighted moving average price method, the system values goods receipts with the purchase order price and goods issues with the current moving average price. The system automatically calculates the goods issues upon every goods movement by dividing the total value by the total stock quantity.

CHAPTER 7

MATERIALS ISSUE PROCESS

7.1 Introduction

Materials can be issued from any location as given below:

- (i) Regional store to micro store.
- (ii) Regional store to regional store.
- (iii) Micro store to micro store.
- (iv) Micro store to works.
- (v) Regional/micro store to outside agencies/third party.
- (vi) Micro store to regional store.
- (vii) Work site to micro store.

7.2 Materials Issue Policy

- (i) The Store In-charge shall issue materials only as per the relevant materials requisition¹⁷ generated by the indenting units. For the materials issued from the buffer stock (where the relevant purchase requisition are not available), approval shall be sought from appropriate authority as per the Delegation of Power.
- (ii) The issue of materials shall be initiated only after the preparation of loading slip, where necessary.
- (iii) The Store In-charge shall not issue any material without generating Goods Issue Note (GIN) from the system along with the packing list, where necessary. The packing list shall contain the list of materials and its accessories contained in a container or in a carriage.
- (iv) The rate of the material in the GIN shall be the weighted moving average price generated by the system on the date of issue except for issue of material to outside agencies/third party. For the issue of material to outside agencies/third party, additional handling charge of 10% shall be added.
- (v) The Store In-charge shall issue materials to outside agencies only after receiving approval from the competent authority. Prior to the issue of materials, the payment shall be deposited with the corporation.
- (vi) When issuing the material, care should be taken to ensure that materials are issued on the basis of 'First In, First Out'.

¹⁷ Refer Clause 2.1, Chapter 2-Materials Requisition Process for various types of requisition.

7.3 Responsibility

- (i) The Head of the stockholding unit has the overall responsibility to ensure that material issue procedures are adhered to.
- (ii) The Store In-charge is responsible for ensuring that stocks are issued to authorized person(s).
- (iii) Store In-charge The Store In-charge is responsible for loading the materials in the most efficient and effective manner.

7.4 Materials Issue Procedure

7.4.1 Issue to Micro Store

As per the relevant material requisitions, Regional Store shall issue materials by generating GIN along with a packing slip where necessary. The GIN shall be signed by all the signatory authority and shall be made in to five (5) copies to be used for the following purposes:

- (i) The first copy shall be retained in the regional store for record and reference.
- (ii) The second copy shall be provided to the carrier for customs formalities in transit.
- (iii) The third copy shall be forwarded to the micro store for record.
- (iv) The fourth copy shall serve as an acknowledgement document which shall be signed by the receiving micro store and returned to the regional store.
- (v) The fifth copy shall be retained by the Security.

7.4.2 Issue to Works/Contractor

On the basis of approved work heads, micro store shall issue material to the site supervisor/contractor by generating GIN with reference to the material reservation. The GIN shall be signed by all the signatory authority and shall be made in to three (3) copies to be used for the following purposes:

- (i) The first copy shall be issued to the site supervisor/contractor along with the materials for updating the Materials At Site (MAS) register.
- (ii) The second copy shall be retained in the micro store for record and reference.
- (iii) The third copy shall be retained by the Security.

7.4.3 Inter-Unit Transfer of Materials

Based on the STR from the indenting stock holding unit, the issuing stock holding unit shall create STO and issue the materials to the indenting stock holding unit by generating GIN. The GIN shall be signed by all the signatory authority and shall be made in to four (4) copies to be used for the following purposes:

- (i) The first copy shall be retained in the issuing store for record and reference.
- (ii) The second copy shall be provided to the carrier for customs formalities in transit.
- (iii) The third copy shall be forwarded to the indenting store for record.
- (iv) The fourth copy shall serve as an acknowledgement document which shall be signed by the indenting store and returned to the issuing store.

7.4.4 Issue of Materials to Outside Agencies/Third Party.

As per approval of the competent authority, a store shall issue materials to outside agencies/third party by generating sales document¹⁸ through the SAP sales and distribution module. The stores shall then generate GIN along with invoice with reference to sales document. The invoices shall be signed by all the signatory authority and shall be made into three (3) copies to be used for the following purposes:

- (i) The first copy shall be provided to the concerned agency along with the materials.
- (ii) The second copy shall be forwarded to the Finance Section for receiving the payment.
- (iii) The third copy shall be retained in the store for record and reference.

7.4.5 Issue of Materials for Disposal

Any unserviceable materials with the stockholding unit appearing in the defective storage location shall be issued to the auction center by generating GIN with reference to STO. The GIN shall be signed by all the signatory authority and shall be made in to four (4) copies to be used for the following purposes:

- (i) The first copy shall be retained in the store for record and reference.
- (ii) The second copy shall be provided to the carrier for customs formalities in transit.
- (iii) The third copy shall be forwarded to the auction center.
- (iv) The fourth copy shall serve as an acknowledgement document which shall be signed by the receiving person of the auction center and returned to the store.

If unserviceable/ obsolete materials have no economic value to the Corporation, such materials shall be disposed off as per the materials Disposal Procedures of the Corporation.

¹⁸ Sales document or sales order is an agreement between the Sales Organization (any department/division of BPC) and the customer for the supply of specified goods/services over a specified timeframe and in an agreed upon quantity or price.

7.4.6 Checkout at Security Gate

All outbound vehicles from the store premises carrying materials shall declare and enter the following relevant information at the security gate before exit from the store:

- (i) Date and time of exit.
- (ii) Sealed and Signed Good Issue Note (GIN).
- (iii) Vehicle number, Driver's name and ID No.

CHAPTER 8

PHYSICAL INVENTORY VERIFICATION

8.1 Definition

Physical inventory verification of materials or stocktaking is a process of physically inspecting and verifying of inventories at regular intervals.

8.2 Purpose

The purposes of physical inventory verification are:

- (i) To ascertain that the actual quantity at the store matches with that of the book balance.
- (ii) To identify any incomplete, unserviceable, obsolete and damaged items.
- (iii) To determine the slow and non moving materials.
- (iv) To ascertain for excesses and deficiencies in the stock if any.

8.3 Responsibility for Physical Verification

The Procurement Services Department is responsible for initiating the physical inventory verification process in the regional stores and the concerned Head of the Department/Division for the micro store. The physical verification of inventories shall be carried out in the regional and micro stores by teams constituted as follows:

- (i) At Regional Stores:

The Physical verification in Regional Stores shall be conducted by an independent team appointed by the concern Head of the Wing/Department and shall comprise of members from various wings/departments of the Corporation including one team member from Internal Audit Division.

- (ii) At Micro Stores:

In Micro Stores, the physical inventory verification shall be conducted by an independent team comprising members from other divisions/units within that Region including one team member from FAS.

8.4 Frequency of Periodic Physical Verification

While perpetual verification/counting of materials shall be carried out throughout the year by the respective stores personnel in both Regional and Micro Stores, there shall be two periodic verification of inventories at the Regional Stores viz., half-yearly and annually. Half-yearly physical

verification of stocks shall be carried out for 'A' and 'B' categories of items, while annual physical verification shall be carried out for all categories of items.

At the Micro Stores level, the physical verification shall be carried out annually for all categories of items.

Half-yearly and annually physical inventory shall be carried out as per the following schedule;

Particulars	Categories of Items	Schedule
Regional Stores Division		
Half-yearly Physical verification	'A' and 'B' categories	1 st July
Report submission for Half-yearly Physical verification to PSD Head Office	'A' and 'B' categories	30 th July
Annual Physical verification	All categories	1 st December
Report submission for Annual Physical verification to PSD Head Office	All categories	20 th December
Micro Stores		
Annual Physical verification	All categories	1 st December
Report submission for Annual Physical verification to concerned Head of the Department	All categories	20 th December

However, the Head of a Division/Unit may issue instructions for some categories of stocks as listed below to be stock-checked frequently.

- (i) High value stocks.
- (ii) Stocks with great risks of pilferage.
- (iii) Stocks with rapid usage.
- (iv) Statutory regulated stocks e.g., ammunition.
- (v) Stocks with short shelf life period e.g. paint.

8.5 Responsibility of Physical Verification Team

The following are the responsibilities of Physical Verification Team:

- (i) To physically count/weigh/measure the available stock and check the actual stocks in the bin level/storage location.
- (ii) To obtain explanation for stock deficiencies and surpluses and recommending rectification actions to the Competent Authority¹⁹.
- (iii) To comment on the status of stocks and storage facilities including security in a store.
- (iv) To certify the stock balances in the bin level/storage location.

¹⁹ As per the Delegation of Power, 1st January 2012

- (v) To identify and certify slow and non-moving, incomplete, and obsolete stocks.
- (vi) To report on the accuracy of stock records in a store.
- (vii) The physical verification team shall submit the above observations to the concerned Head of the Department as Physical Verification Report duly signed by all the members.

8.6 Physical Verification Guidelines

- (i) Before the commencement of physical verification, all inventory related transaction shall be suspended and any temporary GIN and GRN shall be updated in the system.
- (ii) The team shall generate and print the physical inventory document as indicated in Form- 3. This document shall only list out the materials available in the stock.
- (iii) The team shall then start counting the physically available stock and record in the system.
- (iv) After recording in the system, the team shall generate inventory difference list as indicated in Form -4. If the concerned Head of the Division/Store In-charge is not convinced with the differences/discrepancies shown, then recount shall be initiated.
- (v) If recounting is not required and the discrepancies are within the tolerance level²⁰, the team shall close the physical inventory verification by posting in the system. However, if the discrepancies are beyond the tolerance level, then the team shall accord an approval from the competent authority for posting and closing the physical inventory verification.
- (vi) During the time of physical verification, the team shall identify Fast, Slow and Non Moving items as per the detailed procedure elaborated in Chapter 9. Further, the team shall also identify and certify any incomplete, unserviceable, obsolete and damaged items in order for the concern divisions to take necessary actions.

8.7 Accounting of Shortage and Excess Materials

- (i) Excess Materials

Excess materials found after the physical verification shall be recorded at the rate (weighted moving average price) generated by the system and issued at the same value.

- (ii) Shortage of Materials

In the event the shortage is due to reasons not attributable to willful fraud and misuse or due to site contingencies and exigencies, the shortages shall be written off with the prior approval of the competent authority by the stock holding unit.

In the event a shortage of material due to willful fraud and misuse arises, such cases shall be submitted to the competent authority by the physical verification team for necessary action.

- (iii) The adjustment of shortage or excess arising out of the physical verification process shall be adjusted in the books of account within the same financial year.

²⁰ Tolerance level of +/-1% shall be acceptable for only those materials whose units of measurement are in kilograms, litres, meters etc.

8.8 Accountability and Responsibility

- (i) The overall responsibility for the proper management of inventory and warehouse shall rest with the Head of the stockholding unit. In the event there is a shortage of materials after the physical verification process, the Store In-charge of the stockholding unit shall be directly accountable while the head of the stock holding unit shall be held for supervisory accountability.
- (ii) The head of the stock holding unit shall be responsible to submit duly signed physical verification report to FAS for the financial closing.

8.9 After completion of the physical verification and signing of the reports, the stock holding unit can start material transactions.

CHAPTER 9

SLOW AND NON MOVING MATERIALS

9.1 Introduction

Slow and non moving stock keeping units (SKUs) or materials represent idle funds in stores. Apart from blocking the funds (interest and opportunity cost), they also consume inventory management resources and add up to inventory carrying costs. On the other hand, promptness in segregating slow and non-moving SKUs and affecting appropriate action would facilitate a focused inventory management and better inventory realization.

9.2 Guidelines

- (i) The review of slow and non-moving items in a stockholding unit shall be carried out yearly by the physical verification team during the annual physical verification. However, materials designated as insurance/capital spares, tools and plants, and testing equipment shall not be brought out for review under slow and non moving items.
- (ii) The criteria for the establishment of an SKU as fast, slow and non-moving are as follows:
 - (a) Non Moving: An SKU whose consumption is nil during the last four years.
 - (b) Slow Moving: An item whose consumption during the last four year is less than 30% of the sum of opening stock and purchases during the last four years.
 - (c) Fast Moving: All other items that do not fall under the above two categories shall fall under this category.

The criteria, i.e., the threshold percentage issue for designating an SKU as Fast, Slow and Non-Moving shall be amended as desired by the Management.

9.3 Treatment of Slow and Non-Moving SKUs

9.3.1 Further Classification of Non-Moving SKUs

Non-Moving SKUs shall be further classified into the following categories:

- (i) Surplus SKUs: SKUs that are in working order but are not required for use and stock lying in stores for more than four years shall be deemed as surplus unless there is any good reason to treat them otherwise;
- (ii) Obsolete SKUs: SKUs in working order but cannot be put into use because of change in technology/design.
- (iii) Incomplete SKUs: SKUs which are not in working order because of missing accessories/components.
- (iv) Unserviceable SKUs: SKUs which cannot be put into use.

9.3.2 Accounting of Non-Moving SKUs

- (i) Non-moving SKUs classified as obsolete/unserviceable shall be auctioned off as per the Auction Procedures of the Corporation.
- (ii) Non-moving SKUs classified as incomplete shall be retrofitted through the procurement of required accessories.
- (iii) Treatment of surplus SKUs shall be based on the recommendation of the Head of the Department/Division and approved by the Management.

9.3.3 Accounting of Slow Moving SKUs

New procurement of SKUs designated as slow moving shall be initiated only if the existing stock does not meet the intended requirements.

CHAPTER 10

WARRANTY CLAIM PROCESS

10.1 Introduction

In order to ensure that materials and equipment procured conforms to the specifications and is fit for the intended purpose, there is a provision in the contract agreement/purchase order that requires suppliers to warrant the material/equipment for a maximum of twelve (12) months after delivery at regional stores.

10.2 Coverage

The warranty clause provision of the contract agreement/purchase order covers the following:

- (i) Manufacturing defects (specifications, materials, and workmanship), and
- (ii) Damages in transit from ex-works to the port of landing, i.e., either Regional Stores or Micro Stores.

However, for the warranty for material/equipment failure, shall not be applicable under the following circumstances:

- (i) Improper installation.
- (ii) Operational errors.
- (iii) Damage in transit from Regional Stores to Micro Stores.
- (iv) Mishandling.
- (v) Neglect and abuse.
- (vi) Any other circumstances those are not attributable to the Vendors.

10.3 Conditions for Warranty Claim

The following pre-conditions must be met by any stockholding unit before processing any warranty claim with the Purchasing Agency:

- (i) Confirmation that the fault/defect in an equipment/material is attributable to manufacturing defects, and
- (ii) The faulty/defective material is under the warranty coverage period.

10.4 Warranty Claim Procedure

The following procedure shall be observed by a stockholding unit to process a warranty claim:

- (i) The stockholding unit may initiate warranty claim with the Purchasing Agency for a faulty/defective material/equipment as per the prescribed warranty claim format (Form-5) accompanied by a failure investigation report along with the evidence.
- (ii) If the preconditions of warranty claim are satisfied, the Purchasing Agency shall process with the vendor to make good the faulty/defective material/equipment.

APPENDIX - I

List of Forms

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BHUTAN POWER CORPORATION LIMITED
(Name of Stockholding Unit)

Form-1

Materials Rejection Note (MRN)

Rejection Note No.:

[Date]

Description of Goods	UoM	Qty Received	Qty Rejected	Reason(s) for Rejection

(Name, Designation and Signature)
Store In-charge/Head of the Stock Keeping Unit

BHUTAN POWER CORPORATION LIMITED
(Name of Stockholding Unit)

Form -2

Stock Bin Card

Bin Card No. :	From – To :
Item Code :	Item Description :
UoM :	Max Stock :
Name of Store In-charge :	Min Stock :

Date	GRN/GIN No.	Quantity			Balance	Store In-charge 's Signature	Remarks
		Received	Issued	Balance			

BHUTAN POWER CORPORATION LIMITED
(Name of Stockholding Unit)

Form – 3

Physical Inventory Document

Plant:
Warehouse:
Storage Location/Storage Type:
Inventory No:

Count Date:
Recount Version:

Sl. No.	Material No.	Material Description	Batch	Qty. Available Physically	UoM

Counted and Verified by:

Name & Signature

Name & Signature

Name & Signature

Name & Signature

Name & Signature

Name & Signature

BHUTAN POWER CORPORATION LIMITED
(Name of Stockholding Unit)

Form – 4

Inventory Difference List

Plant:

Warehouse:

Storage Location/Storage Type:

Inventory No:

Count Date:

Recount Version:

Sl. No.	Storage Location/ Bin	Material No.	Material Description	UoM	Book Qty.	Book Value (BTN)	Counted Qty.	Counted Value (BTN)	Difference in Qty.	Difference in Value	Remarks

Counted and Verified by:

Name & Signature

Name & Signature

Name & Signature

Name & Signature

Name & Signature

Name & Signature

BHUTAN POWER CORPORATION LIMITED
(Name of Stockholding Unit)

Form-5

Warranty Claim Form

1. Name of Micro Store:	
2. Item Code:	
3. Item Description:	
4. Cost of the Item:	
5. Item Model No. (if available):	
6. Item Make/Brand:	
7. Requisition Ref:	
8. Date of Receipt from Stores:	
9. Contract Ref:	
10. Warranty Coverage (Y/N):	
11. Time and Date of Failure:	
12. Place of Failure:	
13. Nature of Failure:	
14. Cause of Failure:	
15. Is the Equipment/Material commissioned:	
16. Operation History Sheet of the Equipment/Material (Y/N):	
17. Tentative Date for the Repair/Replacement:	

(Name, Designation and Signature)
Store In-charge/Head of the Stock Keeping Unit