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|  | <p style="text-align: center;">PROJECT MATERIAL<br/>MANAGEMENT<br/>WORK INSTRUCTION</p> | <p style="text-align: center;"><b>Transmission<br/>Procurement &amp; Supply<br/>Chain Management</b></p> |
|---|---|--|

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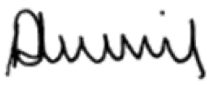


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## 1. INTRODUCTION

The efficient procurement and handling of project material is of paramount importance to the Eskom Transmission (TX) business. Material represents a key component in the successful completion of any project, in certain cases, material accounts for 70% of the total project value.

The material must be of the right quality, right quantity at the right place at the right time, so as to ensure co-ordination and scheduling of the project execution activities in an integrated way. In the Transmission environment, material is needed for all categories of capital projects. Strategic and critical material is also needed for emergencies that might occur in order to restore communications services.

Materials should be ordered and dispatched in the correct quantities; it should be closely monitored to prevent losses and wastage which could lead to project delays and escalation of the project costs.

The following are the points that currently govern the material flow for TX projects:

- Eskom procures and supplies all the Eskom National Contract (ENC) material.
- Eskom delivers material to the project site; material can be transported directly from the supplier or from the Eskom stores by Rotran or a local transporter. Alternatively, contractors can be instructed and authorized, in writing, to collect the Eskom procured material from the Eskom stores.
- Contractors and Project Managers are expected to keep record and track of:
  - The material documentation as received from Eskom.
  - The flow of incoming material as well as outgoing material that is issued from Eskom stores or procured as non-stock by Eskom and delivered to the contractor, or purchased by the contractor for the project.
  - Contractors must have a reliable system which can be either computerized or a reliable manual recording the receipts, issues and stock on hand for each piece of material received to manage project material. Material hand over form (obtain a copy) when materials are handed over to installers

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## 2. SUPPORTING CLAUSES

### 1.1 Scope

This work instruction is applicable to all materials procured for projects in Transmission Division. It describes the process for procurement of material via Materials Management and the requirements for storage at site. It also guides the business on how to manage unused project materials and scrap materials.

#### 2.1.1 Purpose

The purpose of this document is to ensure that Transmission Division has a process and/or a procedure to manage all project material and ensure that they are accounted for, secured, controlled, and preserved as per product specification. This is to ensure accurate reporting of TX assets, project costing and Inventory; and to minimize wasteful expenditure in the business.

#### 2.1.2 Applicability

This document shall apply throughout Transmission Division.

#### 2.1.3 Effective date

Item 4: Material Requisition and Procurement, and all related Material Management activities, Control points, and RACI will become effective from 1 January 2022.

Rest of this document will be effective from approval/authorised date.

## 2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

### 2.2.1 Normative

- [1] ISO 9001 Quality Management Systems
- [2] 32-1226 Process Control Manual for Manage Warehouse and Haulage Level 3
- [3] NEC 3 Engineering and Construction Short Contract
- [4] 32-1033 Eskom Procurement and Supply Management policy
- [5] 32-1034 Eskom Procurement and Supply Management procedure
- [6] 240-54820279 Receive Materials work instruction
- [7] 240-54818977 Storage of Material work instruction
- [8] 240-54819861 Manage Picking and Issuing work instruction
- [9] 240-54819031 Perform Inventory Control work instruction

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- [10]240-54820268 Stock Transfer Between Plants work instruction
- [11] 240-54819052 Perform Inventory Control Movement work instruction
- [12]240-54819241 Identify Items For Repair work instruction
- [13]240-54819262 Manage Scrap, Obsolete and Inactive Inventory work instruction
- [14]240-43921804 Project Material Transfer Form
- [15]240-98778308 Weekly Project Material Reconciliation Template
- [16]240 – 44175038 Control of Non-conforming Product or Service Procedure
- [17]240 – 53464409 Nonconforming and Corrective Action Procedure
- [18]Site Material Register
- [19]Contractor Material Register
- [20]ProForma
- [21]IM – 104 Return to Stores
- [22]240 – 58972386 Scrap authorization form
- [23]240 – 140894594 Contractor Material Handling, Storage And Record Keeping
- [24] Reason for Material Return to The Warehouse
- [25]PFMA Procedure
- [26]240-134853814 Transmission Project Material Management Work Instruction Rev 0
- [27]32-245 Eskom waste management standard

**2.2.2 Informative**

- [28]Practice note – Goods receipt (GR) processed in excess of 3 working days.

**2.3 Definitions**

| <b>Definition</b>       | <b>Explanation</b>  |
|-------------------------|---|
| Control point           | Minimum proof of evidence of compliance to process  |
| Unused project material | Material that has been incorrectly specified;<br>Handed over to Grid for installation;<br>Excess Project material |
| Scrap Materials         | Materials that have been identified by the relevant technical specialist to be unusable                           |
| Project                 | Work that is carefully planned to achieve a particular aim within a set of quality, time and cost constraints     |
| Proforma                | Proforma and bill of materials are used interchangeably in this document  |
| Material                | Spares, parts and consumables required for the successful completion of the project                               |
| Reservation             | A reference number from the SAP system indicating that certain materials have been reserved                       |
|                         |   |

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## 2.4 Abbreviations

| Abbreviation | Explanation   |
|--------------|---|
| BOM          | Bill of Materials   |
| CRA          | Concept Release Approval  |
| DRT          | Design Review Team  |
| DSS          | Demand Supply Scheduler   |
| ENC          | Eskom National Contract   |
| ERA          | Execution Release Approval                                      |
| Forex        | Foreign Exchange  |
| FRA          | Final Release Approval  |
| GI           | Goods Issue   |
| GR           | Goods Receipt   |
| HV           | High Voltage  |
| HVE          | High Voltage Engineering  |
| LES          | Line Engineering Services                                       |
| LLT          | Long Lead Time  |
| MM           | Materials Management  |
| MRP          | Material Requirement Planner                                    |
| NCR          | Non Conformance Report  |
| NEC          | National Eskom Contract   |
| PC           | Project Coordinator   |
| PC&A         | Process Control & Assurance                                     |
| PCR          | Project Change request  |
| PLCM         | Project Lifecycle Control Model                                 |
| PM           | Project Manager   |
| PO           | Project Officer   |
| PO           | Purchase Order  |
| PR           | Purchase Requisition  |
| ProgM        | Programme Manager   |
| RACI         | Record of persons Responsible, Accountable, Consulted, Informed |
| SAP          | Systems Applications and Products                               |
| SMRP         | Senior Material Requirement Planner                             |
| TX           | Transmission  |
| WBS          | Work breakdown structure  |

## 2.5 Roles and responsibilities

- Project Manager to ensure that there is a system / reliable manual register indicating all movements in and out of the site.

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- Project Co-coordinator to compile material reconciliation and Project Manager to approve a monthly material reconciliation.
- Project Manager must authorise the disposal of scrap.
- Project Manager must authorise the Return to Stores Form (IMI-104) when material is returned to the warehouse.
- Project Manager must authorise the DCFs for non-stock materials being returned to the warehouse.
- Project Controller must compile the final project material reconciliation. This reconciliation must be authorized by the Project Manager.

## **2.6 Process for Monitoring**

Throughout the project life cycle, the Programme Managers (ProgM) shall ensure that measures are put in place to introduce and monitor the control points as recommended in this document. Compliance and progress will be monitored through the material reconciliation interventions that will be undertaken throughout the life cycle of the project. Process Control and Assurance (PC&A) will ensure that Transmission comply with the document by performing Ad-hoc reviews.

## **2.7 Related/Supporting Documents**

240-134853814 Transmission Project Material Management Work Instruction Rev 0

## **3. PROBLEM STATEMENT**

When this document was developed there was no process or standard procedure that can assist the Project resources to monitor and manage materials that are procured, issued to and used in projects.

From observations from site visits and current findings from stock counts within Transmission, the following were noted and need to be addressed in this document:

- Material purchased long before start of project.
- Lack of proper storage facility and storage controls.
- Material left over from completed/cancelled projects, unaccounted for and not booked into inventory.
- Excessive material purchased.
- Material not preserved correctly.
- Material transferred to other sites/projects without following the proper process.
- Register of the unused project material not communicated to all stakeholders.
- Lack of scrapping and disposal of unusable materials.

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- Lack of safe guarding of material.
- No existence of clearly demarcated area for project material, Grid material and Materials Management material.

This document is limited to the management of Eskom procured material and material bought out by the Contractor on behalf of Eskom, this aims to highlight the material management activities / systems, control points and the role that each Stakeholder should play.

#### **4. MATERIAL REQUISITION AND PROCUREMENT**

The Engineer from High Voltage Engineering (HVE), Line Engineering Services (LES) and the Designer from Engineering Design shall provide the PM/PO with the following;

- Eskom National contracts (ENC) – approved equipment and materials proforma
- Eskom non National contracts – approved design package including equipment and materials proforma

Prior to the creation of the reservation, the material to be ordered is verified by the PM/PO against the proforma as signed off by the Project Engineer. Reservations can only be loaded when the funds have been approved and released by the appropriate governance committee at the relevant Project Lifecycle Control Model (PLCM) stage. The PM/PO places a reservation on the system and forwards the proforma with the reservation number attached and budget approval to Materials Management (MRP). The PM/PO is responsible for ensuring that the verified material is as listed on the proforma with material numbers (items are complete and correct). The material delivery dates are often stipulated in the material reservation which shall include the lead time for that specific material. In selected cases, specific Long Lead Material (LLT) can be ordered on approval of the CRA.

Reservations for project material are created by the Project Controller after appropriate governance approval at the relevant Project Life Cycle Model (PLCM) stage. Prior to the creation of the reservation, the material to be ordered is verified by the Project Controller against the Bill of Material (BOM) as signed off by the Project Engineer. The Project Controller is responsible for ensuring that the verified material is as listed in BOM (items are complete and correct). The material need and delivery dates should be stipulated on the material reservation. Specific Long Lead Time (LLT) material should be included in the DRA financial approval and ordered after the Technical Review Committee (TRC) approval is obtained.

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#### 4.1 Material Management process

- When there is an ENC in place, the process is:
  - ✓ On receipt of the reservation created by the end-user on SAP, the MRP analyses the demand and align the requirement date to the lead-time of material delivery.
  - ✓ Access the ZPA 039 to verify the funds allocated on SAP by following these instructions
    - Type project number,
    - Financial year,
    - At the bottom of the screen it will let you know if budget has been released
    - Or alternatively 1
    - Contact the Transmission Project Accountant
  - ✓ The MRP communicates with the PM/PO to acknowledge the reservation and receipt of the documents.
  - ✓ The Senior MRP (SMRP) shall draw down from the ENC based on the reservation requirements; send the order to the supplier who will then respond with the order acknowledgement letter which endorses the delivery date.
    - SMRP shall take foreign exchange (forex) cover where required
  - ✓ The SMRP shall expedite to ensure delivery date is met.
  - ✓ Once the material has been delivered to the Warehouse the SMRP/MRP shall inform the PM/PO.
  - ✓ The PM/PO will have to arrange transport for material collection from the Warehouse to site.
  - ✓ Where the materials have to be delivered directly to site, the SMRP/MRP shall inform the PM/PO of the delivery. The PM/PO shall do the following;
    - Arrange for site access
    - Arrange for material acceptance
    - Arrange for person to receive the material
- When there is no ENC in place, the process is:
  - ✓ On receipt of the reservation created by the end-user on SAP, the MRP analyses the demand and align the requirement date to the lead-times of procurement and material delivery date.
  - ✓ Access the ZPA 039 to verify the funds allocated on SAP by following these instructions
    - Type project number,
    - Financial year,
    - At the bottom of the screen it will let you know if budget has been released
    - Or alternatively
    - Contact the Transmission Project Accountant

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- ✓ The MRP communicates with the PM/PO to acknowledge the reservation and receipt of the documents.
- ✓ The SMRP creates the Purchase Requisition (PR) attaching all documents (such as specification, technical evaluation, procurement practice note, drawings, etc.) as per the PR Checklist.
- ✓ The SMRP follow up with procurement on the status of the PR and advises the MRP who in turn advises the PM/PO.
- ✓ Once the PR is converted to a Purchase Order, the SMRP shall expedite to ensure delivery date is met.
  - SMRP shall verify that foreign exchange (forex) cover has been taken out where required.
- ✓ Once the material has been delivered to the Warehouse the SMRP/MRP shall inform the PM/PO.
- ✓ The PM/PO will have to arrange transport for material collection from the Warehouse to site.
- ✓ Where the materials have to be delivered directly to site, the SMRP/MRP shall inform the PM/PO of the delivery. The PM/PO shall do the following;
  - Arrange for site access
  - Arrange for material acceptance
  - Arrange for person to receive the material

NB: The above mentioned processes shall apply should additional material be ordered.

#### **4.2 Design Change Management**

- If a change in design the Variation Order (VO) process will be followed and the Project Manager will inform stores of the change in requirements.
- The issued material will be returned to stores and the project will be credited.
- A new order will be placed with the new requirement.
- The returned material will be kept in stock and issued to another project when required.

#### **4.3 Procurement Process**

The Commercial resources (Project Buyers / Specialists Buyers / Sr. Material Requirements Planners (MRPs) and MRPs\*) are responsible for:

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- Dealing with the suppliers when requesting a quotation and subsequently placing the material orders.
- Ensuring that the right quantities of material are received on time (as stipulated in the reservation).
- Procuring non stock items, only after confirmation from stores that those items are not available as stock items.
- Some items can be procured by the MRPs from a draw down contract.

\*applicable on existing contracts

## **5. MATERIAL MANAGEMENT ON SITE**

In order to ensure that the material quantities are continuously tracked, it is important to create a common understanding of the flow of material from

- Eskom TX Warehouse to project site
- From the Port to Eskom project site
- Eskom TX Warehouse /Suppliers to the Contractors
- Eskom project site to Eskom TX Warehouse
- Contractor site camp to Eskom TX Warehouse

Quantities as specified in the proforma/BOM should equate to the total material supplied to the project by Eskom and the Contractor, Material installed and at the Site Camp. Any material not required after the completion of the project should be returned to the Eskom TX Warehouse.

The project manager is responsible and accountable for all material delivered to sites. They are also accountable for material that has been installed, damaged and in excess.

The flow of material (quantities) is recorded in the following documents:

- Eskom Supplied Material : Goods Issue (GI) slips & transport delivery notes
- Contractor acceptance of free issue material must be documented and quantities verified (refer document no. 240-98778308)
- Total Material Installed - Site material register, reconciliation during the course of execution and at completion of the project. The site supervisor shall complete the Site materials register. This document needs to be communicated to the PM fortnightly.
- Material at Contractor site/ site camp – (contractor materials register), delivery notes and an agreed contractor system e.g. Contractor to record receipts, issues and stock on hand. A system should show the status of each piece of the material received.
- Once the material has been issued from the Materials Management warehouse, proper storage facilities, meeting the specifications, should be provided by the contractor site / project site at all times.

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- In order to ensure that the material quantities are continuously tracked, it is important to create a common understanding of the flow of material from:
  - Eskom stores / supplier directly to projects site / Contractor.
  - Contractor site camp to the project site.
  - Site camp / project site back to Eskom stores.
- Quantities as specified on the BOM should equate to the total material supplied to the project by Eskom and the contractor.
- Material installed, at site camp:
  - Any material not used during execution and after completion of the project should be returned to the Eskom stores.
  - A material reconciliation shall take place and the Project Manager will indicate if the material is fit for purpose.
  - If the material is fit for purpose, the material will be returned to stock.
- Where material is deemed scrap, the Project Manager will inform Materials Management and the scrap process will take place.
- The flow of material (quantities) is recorded in the following documents:
  - Eskom supplied material: Goods Issue (GI) slips and Rotran / supplier delivery notes.
  - Contractor purchase: Supplier invoices, Bill of Quantity (BOQ) and delivery notes.
  - Total material installed: site material register, reconciliation during the course of and at completion of the project.
- Material at contractor site camp: GI slips, delivery notes and a computerized or reliable manual system used by the contractor / Project Manager to record receipts, issues and stock on hand. The system should show the status of each material as received from Eskom / bought out from suppliers.
- Monthly material reconciliation, by the contractor, between the physical material at hand and the control system.
- Monthly material reconciliation between the contractor records and project management records.
- At the end of the project, a complete material reconciliation must be compiled by the Project Controller and signed off by the Project Manager.

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- In the event that not all material having been used during project execution, the signed off material reconciliation, together with the surplus material and the return to stores document (IMI104) must be returned to stores.
- The return to stores document (IMI104) must be authorized by the Project Manager.

## **5.1 Project site storage area, Security, Access and Identification of stored material at site**

### **5.1.1 Project site storage area**

- An area for storage must be identified by all relevant stakeholders (TX Grid personnel, PM).
- The area identified shall be free from vegetation. If the identified area requires rehabilitation it must be included in the design.
- The identified storage area shall be documented on the design drawing with all standard references must be included.
- Where required, all electrical connections and installations shall also be indicated on the design drawing and must conform to the Eskom standard.
- Where materials require special preservation requirements that are not possible in the project storage area, the PM shall make the necessary arrangements.

### **5.1.2 Security**

- Project manager (PM) shall ensure that the location identified for storage of material is secure to prevent theft and loss of material.
- The Project manager must ensure clear demarcation and restricted access to the project material on site. E.g. Fence off the area, security etc.
- The storage area must have controlled access.

### **5.1.3 Access**

- There should be sufficient space for access to the secured area by both vehicles and personnel. E.g. Vehicle Gates and pedestrian gates
- The access gates must be locked and controlled. This control may be handed over to the appointed contractor if there is no dedicated site appointed Eskom site supervisor, who will become fully responsible for this area.

### **5.1.4 Identification of stored material at site**

- The PM/Site supervisor and the contractor shall ensure that the storage area is clearly labelled
- The labels must be weather resistant to ensure the information is legible and the

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labels can be secured to the fence.

#### 5.1.5 The following information must be on the Eskom label

- ✓ Project name
- ✓ Project managers name
- ✓ Project managers contact number
- ✓ Site supervisors name
- ✓ Site supervisors contact name
- The following information of the responsible contractor must be on the Eskom label
  - ✓ Contractors name
  - ✓ Contractor Responsible person name
  - ✓ Contractor Responsible person number

#### 5.1.6 Material issued to projects

Once the material has been issued from the Materials Management warehouse, proper storage facilities, meeting the specifications, should be provided by the contractor site / project site at all times.

Quantities as specified on the BOM should equate to the total material supplied to the project by Eskom and the contractor.

Material installed, at site camp:

- Any material not used during execution and after completion of the project should be returned to the Eskom stores.
- A material reconciliation shall take place and the Project Manager will indicate if the material is fit for purpose.
- If the material is fit for purpose, the material will be returned to stock.
- Where material is deemed scrap, the Project Manager will inform Materials Management and the scrap process will take place.

#### 5.1.7 The flow of material (quantities) is recorded in the following documents:

- Eskom supplied material: Goods Issue (GI) slips and Rotran / supplier delivery notes.
- Contractor purchase: Supplier invoices, Bill of Quantity (BOQ) and delivery notes.
- Total material installed: site material register, reconciliation during the course of and at completion of the project.

## 6. PROJECT SITE CLEAN UP

All leftover materials from completed or cancelled projects shall be identified as follows:

- Materials to be scrapped and disposed.
- Excess/unused materials that can either be transferred to other Eskom projects that require similar materials, or booked to Materials Management (TX Warehouse) as per Eskom process.

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- Used materials removed from decommissioned plant that can be kept as spares for the Grid use.
- Any Building and demolition waste, including hazardous waste, produced during the construction, alteration, repair or demolition of any structure, must be handled strictly in terms of the standard 32-245 Eskom waste management and related procedures

**7. MATERIAL MANAGEMENT ACTIVITIES, CONTROL POINTS AND RACI**

The following is a list of activities (and their control points) that have to take place from the identification of project material to the return of excess material to Eskom stores (on completion of the project):

| Activity                             | Activity Description<br><b>STOCK</b>  | Activity Description<br><b>NON-STOCK</b> | Control point            | Responsible     |
|--------------------------------------|---|--|--------------------------|-----------------|
| 7.1 Compiling of Proforma/BOM        | <ul style="list-style-type: none"> <li>• Detail the list of equipment and material required for the project.</li> </ul> Generate Proforma/BOM to be issued to project execution.  |  | Design review team (DRT) | Design Engineer |
| 7.2 Verify documentation and content | On receipt of the Proforma/BOM, the PM/PO needs to undertake the following, <ul style="list-style-type: none"> <li>• Verify the correctness of Proformas/BOM against the design.</li> <li>• Once the above has been verified, the Proforma/BOM need to be signed off.</li> <li>• Split the Proforma/BOM between stock and non-stock items.</li> </ul> |  | Signed off pro-forma/BOM | Design Engineer |

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|---|--|--|----------------------------|----------------|
|   | <ul style="list-style-type: none"> <li>• Reservations must be created for stock items;(Proforma/BOM to be attached/sent to MM)</li> <li>• Reservation number must be captured on each Proforma/BOM</li> <li>• Non stock items shall be procured by the PM/PO</li> </ul>  |  |                            |                |
| <p><b>7.3</b> Verify material to be ordered (stock and non- stock item from BOM) for completeness</p> | <ul style="list-style-type: none"> <li>• Confirm completeness (all needed material being part of the Proforma/BOM) of all items listed in Proforma/BOM and advise PM/PO of respective items.</li> <li>• In cases of incomplete material information, omissions in Proforma/BOM, should be referred back to the PM/PO.</li> </ul> <p>PM/PO should provide definite dates of delivery of material on the reservations. These dates should take into consideration the material lead times.</p> |  | Confirmed / signed off BOM | PM/PO Designer |
| <p><b>7.4</b> Receipt of reservation by MRP</p>   | <ul style="list-style-type: none"> <li>• The availability of budget needs to be confirmed</li> </ul>   |  | Budget letter              | PM/PO MRP      |

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|   | <p>(approved ERA).</p> <ul style="list-style-type: none"> <li>• The budget letter needs to be sent by the PM/PO to the MRP</li> <li>• MRP shall verify availability of funds using the ZPA 039 transaction.</li> </ul>   |  | SAP report ZPA 039           |                     |
| <b>7.5</b> Verify the relevance of the material   | <p>Prior to the issuing of the BOM, the Engineer needs to undertake the following:</p> <ul style="list-style-type: none"> <li>• Verify the correctness of the BOM against the design.</li> <li>• Establish the relevance of the material at the warehouse.</li> <li>• Split the BOM between stock and non-stock items.</li> </ul> <p>Once all the above has been verified, the BOM needs to be signed off.</p> |  | Signed off the BOM           | Engineer            |
| <b>7.6</b> Obtain a list of material to be ordered  | <p>The material to be ordered is detailed in the BOM that accompanies the Detailed Design Report that is handed over to Project Execution by the Engineer. The BOM list includes the item type, SAP code, item description, unit of measure and the quantity to be ordered.</p>  | <p>The material to be ordered is detailed in the BOM that accompanies the Detailed Design Report that is handed over to Project Execution by the Engineer.</p> | BOM (Detailed Design Report) | Project Manager     |
| <b>7.7</b> Verify the material to be ordered (stock and non-stock item from BOM) for completeness | <p>Confirm completeness and correctness (all needed material being part of the BOM) of all items listed in BOM and advise Project Coordinator of the</p>   |  | Confirmed / signed off BOM   | Project Coordinator |

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|   | <p>respective items and need dates.<br/>In the case of incomplete or incorrect material (omissions in BOM) refer the matter back to the Engineer.<br/>Project Coordinator should give definite dates of delivery of material to Logistics (These dates should take into consideration the material lead times).</p> |   |  |                                     |
| <b>7.8 Financial Approval</b>                         | <p>The availability of budget needs to be confirmed [approved Definition Release Approval and Execution Release Approval (ERA) for all materials] and IM funds release.<br/>Where the required equipment is in stock, these items must be reserved through the creation of a material reservation.</p>              | <p>The availability of budget needs to be confirmed [approved Definition Release Approval and Execution Release Approval (ERA) for all materials] and IM funds release.</p> | <p>Signed Technical Review Committee minutes material reservation number</p> | <p>Project Controller</p>           |
| <b>7.9 Materials Management approve the BOM dates</b> | <p>The BOM and proof of budget approval to be sent to Materials Management. Materials Management must agree to the BOM dates stating lead times to fulfil the reservation requirements.<br/>Project Coordinator must be notified of the need dates as agreed with Material Management.</p>                          | N/A   | <p>Material reservation</p>  | <p>MRP &amp; Project Controller</p> |
| <b>7.10 Create PR</b>                                 | N/A   | <p>Create a Purchase Requisition.</p>   | <p>PR number</p>   | <p>Project Controller</p>           |
| <b>7.11 Material requirement dates</b>                | <p>The Project Controller must monitor and review (as per the agreement with the MRP Controller)</p>  | <p>The Project Controller must monitor and review the need</p>  | <p>Update in writing</p>   | <p>MRP Controller</p>               |

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|   | the need dates. If there is a need for material to be available earlier than the agreed need dates, a written request may be forwarded to the MRP Controller to check if it is for possible earlier delivery on the selected reservations / reservation lines. | dates. If there is a need for material to be available earlier than the agreed need dates, a written request may be forwarded to Procurement to check if it is for possible earlier delivery on the selected purchase order lines. |  |                                      |
| <b>7.12</b> Material delivery date  | The MRP Controller must monitor and review the delivery dates.<br>The MRP Controller must create a material requisition and send the details of the material shortages as experienced to the Project Coordinator.  | The Project Controller must monitor and review the delivery dates. Any shortages or new requirements must be referred to the predetermined project person.   | Updated material reservation           | MRP Controller                       |
| <b>7.13</b> Confirm the readiness of the material to be delivered and initiate and the dispatch request | The material requirements and delivery schedules are confirmed (MRP Controller to be informed) whether the material will be collected / delivered to project site store.   | N/A  | Dispatch request stores to be informed | MRP Controller                       |
| <b>7.14</b> Verify the material to be dispatched against the BOM / dispatch request                     | Confirm the correctness and accuracy of all items on the list of material to be dispatched by comparing these against the items listed in the BOM / dispatch request.  | N/A  | BOM / Dispatch request                 | Project Coordinator / MRP / Stores   |
| <b>7.15</b> Identified differences between material accuracy and  | Verify the accuracy between the SAP system, the physical item and the BOM / dispatch request quantity.   | N/A  | BOM / Dispatch request                 | Project Coordinator / MRP Controller |

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| the BOM / dispatch request quantity                                | Refer variances to Project Execution for possible solution; project execution and MM must decide on the way forward.   |   |  |                                  |
| 7.16 Receipt and verification of material                          | Materials delivered to the warehouse will be recorded in the receipt register.   | Materials delivered to the site will be recorded in the receipt register and the delivery note will be signed   | Receipt Register   | Project Controller               |
| 7.17 Picking of material   | The material must be picked by Warehousing, +-3 days before delivery date to site.   | N/A   | Material reservation Signed picking ticket   | Issuing                          |
| 7.18 Processing of picked material                                 | The picked material must be processed and ready for collection by the Project.<br>Issuing must confirm, with the Project Coordinator, the availability of all material and agree on the most suitable collection date within the 3 days.                           | N/A   | Goods Issued (GI) slip   | Issuing                          |
| 7.19 Projects inspects and collects                                | Projects must make an appointment with stores to collect the material from the stores.   | N/A   | Dispatch request, signed GI slip with full details / breakdown of material to be collected                               | Contractor / Project Coordinator |
| 7.20 Material delivered directly to site from the supplier stores. | Delivery should take place during working hours.<br>Late deliveries must be negotiated with <b>predetermined</b> project person / stores person.<br>Materials delivered to the site will be recorded in the receipt register and the delivery note will be signed. | Delivery should take place during working hours and projects must ensure that the delivery note has been dated by the receiver.<br>Project manager to endorse the | Signed GI slip (with full details of material) to be delivered - proof of delivery note signed and dated by the receiver | Receiving Person                 |

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|                                   |  |   |                                       |                         |
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|                                   |  | delivery note and return to the Project Coordinator for them to process the GR (if not yet processed). Late deliveries must be negotiated with predetermined project person | as "subject to further check"         |                         |
| 7.21 Material off-loading on site | Material can only be off-loaded in the presence of the <b>predetermined</b> Project person (define). The Project Coordinator must ensure that the receiver is present during offloading.   |   | Signed delivery order (if applicable) | 3PL Receiver /          |
| 7.22 Material visual inspection   | The visual quality inspection and quantity of the collected and delivered material to be checked and confirmed on the proof of delivery by the warehouse and deficiencies recorded. The material that got defective during transportation should not be accepted. The proof of delivery must be taken to the warehouse for processing on the SAP system and captured on the receiving register. Follow the rejection process where applicable. |   |                                       | Receiving Stores Person |
| 7.23 Material management on site  | All material received and bought out by the Projects to be neatly stored in designated area, meeting storage specifications to reduce damage to material and packaging and to facilitate periodical  |   | Projects Material Management System   | Project Manager         |

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|   | checking of quantities and quality.  |  |  |                                  |
| <b>7.24</b> Material management during construction             | Project Managers and Contractors should keep records of all material received, used, wastage as well as the outstanding material required to complete the project. Any additional material procured during the project must be added to the material reconciliation.   |  | Project Controller to verify contractor material records during the duration of the project<br>Contractors to keep material records system.<br>Invoices to be submitted with the material reconciliation | Contractor / Project             |
| <b>7.25</b> Material movements during construction              | The contractor shall not release any material to any person, including Eskom personnel, without the written permission of the Project Manager / Project Coordinator. In the event of such permission being granted, date, time, quantity and recipient shall be noted, and signed for the person removing the material.                      |  | Project Material Transfer template (240 9764 2100)   | Contractor / Project Coordinator |
| <b>7.26</b> Material loss / damaged / burnt during construction | Loss, theft or damage to material supplied by Eskom while under the PM control shall be for the account of the Project Manager / contractor (as per Insurance table in the NEC).<br>Once the material has been handed over to the contractor, the risk in the material shall pass from Eskom to the contractor on receipt by the contractor. |  | NEC Contract   | Project Manager / Contractor     |

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| <p><b>7.27</b> Material usage verification during construction</p>   | <p>Verification must take place to ensure that all installed material is as per Bill of Material needs to take place. Constructed asset or infrastructure to be inspected after completion of certain phases to ascertain quality and the quantity of material as installed as per the completed phase.</p> <p>A monthly material reconciliation comparing delivered / bought out material, installed material, and unused material stored at the projects site to be undertaken between projects and Contractor.</p> <p>Verification of contractor material records against the physical stock count must take place monthly. NOD to be issued for missing material.</p> <p>All variances must be noted by the project manager. Appropriate corrective action must be taken.</p> |  | <p>Weekly Project Material Reconciliation template On site material verification</p> | <p>Project Manager / Project Coordinator / Programme Manager (ProgM)</p> |
| <p><b>7.28</b> Insufficient /incorrect BOM material to complete the project / Quantity of material used higher than specified in the BOM</p> | <p>A Variation Order (VO) serves as confirmation that there has been an Engineering change in the final design which necessitates the need for additional resources (labour &amp; material) in order to complete the project. PCR VO showing the change to be completed and accompanied by the revised BOM. Adjust the</p>  |  | <p>VO approved by the Eng. Manager and counter signed by the Programme Manager</p>   | <p>Programme Manager</p>   |

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|   | material reconciliation with the additions.   |  |                             |   |
| <b>7.29</b> Asset site clean up               | All unused material and scrap material to be separated and categorised accordingly. For all surplus material and scrap offcuts during construction or on completion of the project, the project Coordinator must create a return to stores reservation and either return usable material to Eskom store or dispose of scrap using the Manage Scrap, Obsolete and Inactive Inventory Works Instruction (240-54819262).<br>The material must be grouped together according to its type to make it easier for it to be loaded in the trucks and for easy placement when returned to the stores or dispose of as scrap. |  | Signed IMI-104              | Contractor and Project Coordinator          |
| <b>7.30</b> Selling of scrap                  | The sale of scrap material should be according to 32-1034, the disposal of scrap material and should be authorised by the PM.   |  | Asset Disposal form (AMI07) | Project Controller / Officer Asset Disposal |
| <b>7.31</b> Excess material returns to Stores | On completion of the project, material to be returned to stores to be identified and relevant forms (IM104) filled. Project Coordinator to fill in correct material on the form with relevant SAP numbers, project WBS and correct quantities and duly authorised by the PM.  | All materials returned to stores required a DCF to be completed in order to catalogue the material as a new stock item (ERSA or NLAG). Attach a copy of the purchase order |                             | Programme Manager                           |

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|  |   |   |                             |   |
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|  |   | to indicate the price that the material was purchased at. On completion of the project, material to be returned to stores to be identified and relevant forms (IMI-104) filled. PCs to fill in correct material on the form with relevant SAP number project WBS and correct quantities and duly authorised by the PM. Create a return reservation against the new SAP material number and the project WBS. |                             |   |
| <b>7.32</b> Filing of Material records | Copies of all material management documentation e.g. dispatch request, delivery notes and GI slips to be sent to the Project Controller for filing purposes in the project file with the signed materials reconciliation. | Copies of all material management documentation e.g. delivery notes to be sent to the Project Controller for filing purposes in the project file with the signed materials Reconciliation.  | Contractor material records | Project Controller                          |
| <b>7.33</b> Check returned material    | Within two weeks from receipt of returned material by stores, Stores personnel to inspect returned / unused   |   | IM104 / Project WBS         | Receiving Store person / Project Controller |

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|   |   |  |   |   |
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|   | returned material to ensure that it is usable If the unused material is still re-usable the credit should reflect on the project WBS.   |  |   |   |
| <b>7.34</b> Process project credits               | Authorised IM104 to be stamped and credit (for returned material) processed against the project.  |  | Project WBS                               | Stores Personnel                        |
| <b>7.35</b> Final project material reconciliation | Final material reconciliation comparing delivered / bought out material; installed material; and unused material as returned to stores to be undertaken. The Project accountant needs to verify that there are no outstanding commitments against the project for deliveries to be made and verify that there are no open stock reservations against the project before the project close-out is performed. |  | IM104 / SAP Final Material reconciliation | Project Controller / Project Accountant |
| <b>7.36</b> Contractor payment                    | Payment of the final invoice to be held back until final material reconciliation is completed and all material sent back to stores. Approval of the final service entry.  |  | Final material reconciliation             | Project Manager / Programme Manager     |

**8. CONTRACTOR RESPONSIBILITIES**

The relevant Contractor Material Management responsibilities are as published in the “NEC 3 Engineering and Construction Short Contract” and are summarized as follows:

- All material received shall be neatly stored in clearly defined areas to reduce damage and facilitate checking of quantities and quality. Proof of Delivery (POD) slips shall be forwarded to Eskom on delivery / collection and a record shall be kept on site of the total quantities of material received. Such records will be subject to audit by Eskom.

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- Eskom will not be held responsible for any construction delays resulting from loss of material.
- All surplus material (Eskom supply) shall be collected by the Contractor on completion or when the quantities justify the need to collect for each project and to be returned to Eskom's Store.
- Loss, theft or damage to material supplied by Eskom while under the Contractors control shall be for the account of the Contractor. The risk in the material shall pass from Eskom to the Contractor on receipt of material by the Contractor.
- The Contractor shall maintain a record of material movements at all times.
- The Eskom appointed representatives shall be allowed free access to audit and inspect such site stores.
- The Project Manager shall ensure that all materials required for the completion of the Works, shall be timeously ordered and delivered.
- The Contractor shall nominate a responsible person for receiving of material from Eskom Stores. The nominated person shall collect materials and shall present identification to Eskom's requirements.
- The Contractor shall submit his material requirements as set out above to the Project Manager. The Project Manager will submit the material order to Eskom's Store for preparation, where the Contractor shall be required to sign for the correctness and acceptance of each order.
- At the end of the contract period, all Eskom supply surplus material shall be returned to Eskom's Store(s).
- No person shall be allowed or permitted access to remove material from the storage area without the written consent of the Project Manager / Programme Manager.
- Where material is held by the contractor, the Contractor shall not release any material received by his store to any person, including Eskom personnel, without the written permission of the Project Manager. In the event of such permission being granted, date, time, quantity and recipient shall be noted, and signed for the person removing the material.

**9. STAKEHOLDER ENGAGEMENT**

This document has been presented/workshopped to the following business areas:

| <b>Business Area/Unit</b>            |
|--------------------------------------|
| Transmission HV Plant Managers forum |
| Transmission PE SHEQ meeting         |
| Transmission Project Delivery        |
| Materials Management                 |
| Procurement                          |
|                                      |

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## 10. REVISIONS

| Date       | Rev. | Compiler  | Remarks  |
|------------|------|-----------|--|
| April 2021 | 0    | N.P Chawe | Provide a standard procedure that can assist the Project resources to monitor and manage material that are procured, issued to and used in projects. |

## 11. DEVELOPMENT TEAM

The following people were involved in the development of this document:

| Name                | Designation                                   |
|---------------------|---|
| Khanyisile Nkabinde | Manager Materials Management                  |
| Makhosi Mpungose    | Senior Advisor Process Control & Assurance    |
| Mkumbuzi Gqweta     | Middle Manager Process Control & Assurance    |
| Nevin Nel           | Middle Manager Programme                      |
| Nomakhosi Chawe     | Manager Materials Management                  |
| Sandesh Bipat       | Senior Advisor Quality Advisor                |
| Simon Welch         | Contract Manager TPD Integration              |
| Sydney Magagula     | Senior Advisor TPD Integration                |
| Vafa Roohani        | Middle Manager TPD                            |
| Vincent Mlobothi    | Senior Advisor Financial Accounting & Control |
| Zelda Bisschoff     | Middle Manager TPD                            |

## 12. ACKNOWLEDGEMENTS

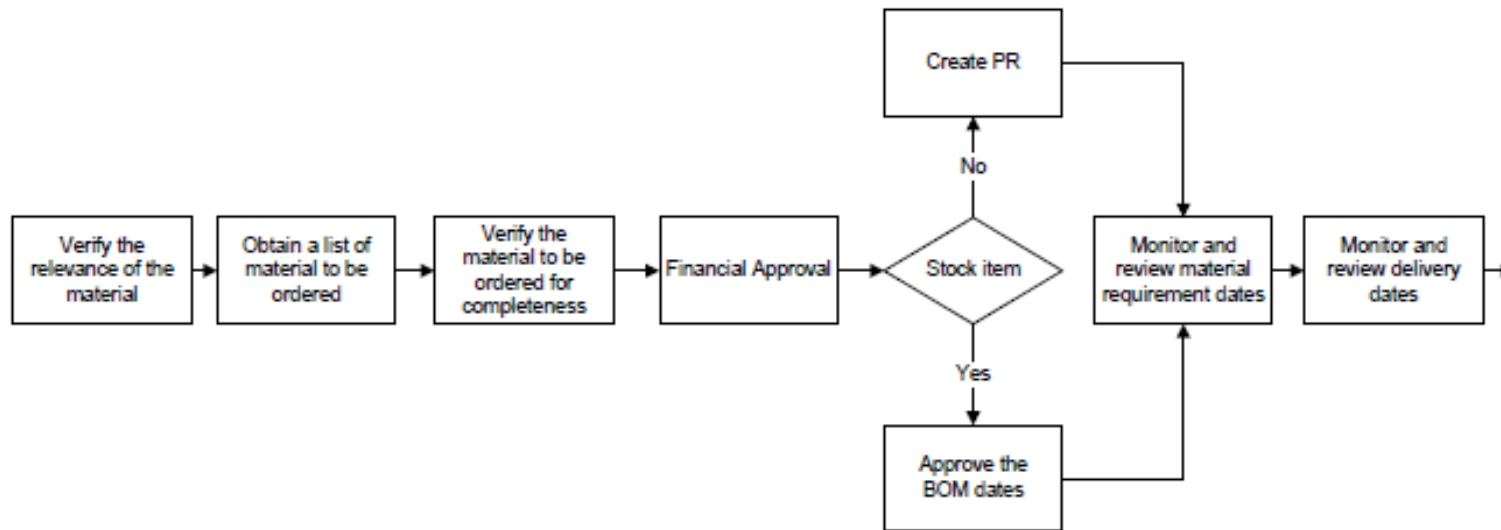
| Name           | Designation                     |
|----------------|---------------------------------|
| Harish Mohabir | Senior Manager Project Delivery |

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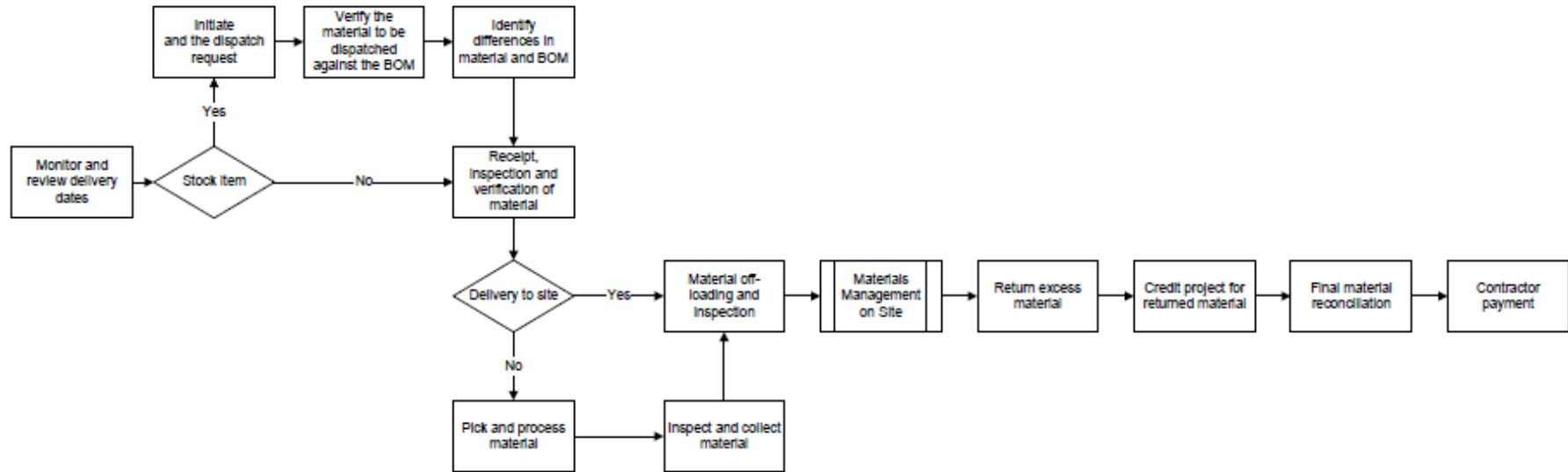
### 13. FLOWCHART 1 MATERIALS MANAGEMENT PROCESS



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