

Subject: Global Infrastructure and Networks Material management and inventory global guidelines

Application Areas

Perimeter: *Global*

Staff Function: -

Service Function: -

Business Line: *Infrastructure and Networks*

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THE HEAD OF GLOBAL INFRASTRUCTURE AND NETWORKS
Livio Gallo

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1. DOCUMENT AIMS AND APPLICATION AREA

This policy aims at defining the guidelines to be followed in the material and inventory management and logistic services operation in support to the Global Infrastructure and Networks Business Line.

The main objectives of the guidelines are as follows:

- Material management in warehouse
- Material inventory management
- Reverse logistic flow management

The main features of this policy are to provide:

- Standardization of material and inventory management
- Definition of the correct reverse logistic flows

This policy shall be implemented and applied to the extent possible within the Enel Group and in compliance with any applicable laws, regulations and governance rules, including any stock exchange and unbundling-relevant provisions, which in any case prevail over the provisions contained in this document.

2. DOCUMENT VERSION MANAGEMENT

Version	Data	Main changes description
1	25/11/2016	Issuing of Global Infrastructure and Networks Material management and Inventory global guidelines policy

3. UNITS IN CHARGE OF THE DOCUMENT

Responsible for drawing up the document:

- Global Infrastructure and Networks: Network Development;

Responsible for authorizing the document:

- Global Infrastructure and Networks: Head of Human Resources and Organization unit
- Global Infrastructure and Networks: Head of Health, Safety, Environment and Quality unit

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4. REFERENCES

- Enel Group Code of Ethics;
- Zero Corruption Tolerance (TZC) Plan;
- Organization and management model as per Legislative Decree no. 231/2001;
- Enel Global Compliance Program (EGCP)
- Global Infrastructure and Networks RACI Handbook;
- Policy No. 39 Global Infrastructure and Networks Logistics Guidelines
- Policy No. 38 - Global Infrastructure and Networks Components and Materials Quality
- DM-2016-001 - Contractual Requirements for Components and Materials Quality management
- Operating Instructions n. 41 Global Infrastructure and Networks Factory Acceptance Test Execution dated 23/12/2015
- Human Rights Policy

5. ORGANIZATIONAL PROCESS POSITION IN THE PROCESS TAXONOMY

Level 1 Process: Networks Management

Level 2 Process: Tbd

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6. DEFINITIONS AND ACRONYMS

Acronym and Key words	Description
1 st level warehouse (Platform)	1st level warehouse (Platform) is a storage site, dedicated to a specific territory or logistics network (with possibly one or more transit- point) with similar characteristics but with smaller, depending on the main deck).
2 nd level warehouse	2nd level warehouses represent the 2nd level of the logistics network and are used as storage sites in relation to the construction, maintenance and demolition of the Network owned by Enel or third party contractors.
3PL	Third Logistics service provider
Contractor	Entity in charge of activities on the network (both for new installations and for maintenance)
EDI	Electronic Data Interchange
Global ND	Network Development units at Global level within Global Infrastructure and Networks Business Line
LMS	Logistic management systems
Local ND	Network Development units at country level within Global Infrastructure and Networks Business Line
Material	Generic term to mean any component, equipment, spare part or consumable essential for the network operation. The characteristics of which must be properly defined
RLOU	Relevant Operating Unit
Supplier	Entity responsible for the manufacturing/production of a material
Transit Point	Platform with reduced or zero stock level
Warehouse	Physical and logical infrastructure dedicated to move and store materials stocks.
WMS	Warehouse management systems

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7. MATERIAL MANAGEMENT IN WAREHOUSE

7.1 Logistic Network - Platforms and second level warehouses

The logistic material management includes the inbound and outbound activity from the material delivery from suppliers up to the material final point of use, assuring the material quality and on-time delivery.

Logistic process involves the integration of information flow, material handling, picking, inventory, transportation, warehousing, and security.

A logistic network is generally characterized by an infrastructure of n-hierarchical layers connected through a transportation service.

Number of logistic model hierarchical layers, number of warehouses per layer, level of service (e.g. time of delivery), overall size of stock and cost of logistics are strongly linked. This policy provides indications on the optimal warehouses material management model.

As a general rule, a two-layer logistic network, composed of primary warehouses (hereinafter defined platforms) and secondary warehouses, shall be implemented according also with the policy n.39 Global Infrastructure and Networks Logistics Guidelines

The management of first layer warehouses (platforms) and the transport from platforms to second layer warehouses shall be generally carried out by Third Logistics service provider (hereinafter 3PL).

As general rule, the logistic service technical specification for the tender shall include only the request of platforms space (internal and external) without request a dedicated platform with exclusive use for to the Enel group company.

The required space will be made up of both covered and uncovered areas, complete with all facilities and equipment (shelving, scales, forklifts, cranes, packaging machines, winding machines, etc.) necessary to perform the required tasks.

Local ND is in charge to evaluate the required covered and uncovered needed areas, calculated the m^2/m^3 value to put in tender according with the historical material space volume in the platforms.

Within the logistics platform, by Enel's request, the 3PL shall put at Enel's disposal, independent free space with the purpose of developing the additional inspection and control activities to the logistics activity.

The main activities that the logistics operator shall perform are the following:

- suppliers' goods reception on the Logistics Platform, including the availability check of the Enel's Quality Approval for the incoming materials (if required). The reception of the materials shall be denied if they are not accompanied by the Quality Approval (if required);
- goods' storage on the Logistics Platform, material handling and picking for delivery;
- material inventory's management;

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- transportation of goods from the Logistics Platform onto the Delivery Points and return of goods from Delivery Points onto other Delivery Points or onto the Logistics Platform,
- other transport (goods transportation from the Logistics Platform to the different locations from the Delivery Points and/or from the different locations from the Delivery Points to the Logistics Platform or onto other delivery points). In this category we also consider transport between two logistics platforms (in the case of a large logistic network) or from Suppliers to the Logistics Platform,
- CROSS-DOCKING from the suppliers that have provided into the contract the delivery of goods in packages prepared for destinations;
- reporting operative activities such as:
 - performing the periodic inventory (monthly, quarterly, half-yearly) and anytime is required;
 - operations' monthly/weekly reporting in view of billing.

7.2 First level warehouse (platform) basic requirements

The Platform (1st level warehouse) is a storage site, dedicated to a specific territory or logistics network (with possibly one or more transit- point with similar characteristics however smaller) and typically used to store materials needed for construction and power lines maintenance and generally shall include covered and uncovered areas.

If the platform management is entrusted to a third party logistics provider, it will be responsible for all activities related to the logistics flow. In case Enel personnel is involved in logistic process control, in the platform shall include a dedicated area to host these workers (according with the tender technical specification prescriptions).

According to the logistics flow characteristics (number of delivery points, supplied customers, volumes of materials to be stored / transported) the platform size shall be adequate to ensure the logistic operation and optimal material flow management without safety problems for the workers or third parties. Therefore the platform shall be provided with a minimum set of security fire-fighting systems (fire extinguishers, smoke detection equipment), also according with the laws in force in each country. Moreover in the platform shall be present emergency exits and evacuation routes properly marked according with the latest applicable safety procedures.

In the platform, covered and uncovered areas shall be present on the floor a lay-out of circulation for people and vehicles. These conditions shall persist for all the entire contract time. Shall also be present burglar alarms and video surveillance with cyclic recording of images manageable on remote and surveillance service with personnel trained according with the requirements established by law.

The 3PL shall be guarantee, for all the contract duration, a suitable industrial cleaning and disinfection service in order to assure the minimum requirements of hygiene and preventive health care.

All the covered and uncovered area shall be provided with an appropriate lighting system according to the requirements established by law.

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The platform shall be equipped with at least one weighing system. As a general rule there should be a weighing trucks of adequate capacity (usually not less than 18 meters and range from 2/4 to 60/80 t.), placed in the delivery area (including returns and recoveries of valuable scrap) or in the picking area. This equipment shall be subject to regular calibration in accordance with the country law.

7.3 Work clearance and safety in the platform

The Logistic Operator is responsible to clean all internal and external spaces of the Logistic Platform, according to a method which guarantees the compliance with the law's provisions in force according to the standards in matter.

All the areas within the warehouse (reception, delivery, storage areas, picking, offices, access paths, yard, parking lots) have to be kept clean and in a good manner by activating some previously established cleaning routines. These routines shall be an integrant part as an annex of the service logistic contract.

The personnel has to be provided with protection equipment specific for the work in a warehouse at high level (if necessary) according to the working rules in force.

The personnel's admittance into the warehouse premises shall be made based on an access card with rights previously established.

Any visitor can enter the warehouse premises only accompanied by a 3PL's operator.

7.4 Material classification

The materials in the logistics platform can be classified into two categories:

- Palletizable Materials
- Not palletizable Materials

Palletizable materials are all those materials that can be stored in standardized load units, in size, weight, stacking and storage in special shelving or other physical location. Not-palletizable materials are all those materials without the above characteristic, with size, weight and non-standardized volumes and need to be storage in different structures from the shelf.

Usually, the materials are delivered in appropriate packaging defined by the suppliers according with the packaging guideline attached to the contract.

For the right handling strategies definition and efficient materials storage, the following provisions must be followed:

- for the materials generally palletized, the 3PL shall apply the highly visible labels that shall indicate for each pallet/load unit:
 - Enel SAP material code

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- SAP material master data description
- Number of pieces contained in the entire load unit
- Date of arrival of the material to the platform (for new materials)
- Relevant purchase order number
- Other eventually 3PL material code
- Any Quality Approval information, if specified in delivery documents

In case of equipment composed by more than one material supplied in a separate box/pallets, the supplier shall indicate the component number referred to the Enel SAP material code.

All the pallet location or any material/shelve location shall be identified by location code on a dedicated label in order to:

- speed up picking activities
- manage the right material location and storage area
- optimize inventory activities

Regarding the optimization of logistics management flows, the material location mapping shall be managed through a dedicated 3PL WMS (Warehouse management system). This system defines the appropriate storage strategies according to the material type (for size and weight).

Local ND shall define at local level warehouse management operating procedure to include in the 3PL tender procedure in order to share with the bidders how to manage the material in the logistic network.

7.5 Storage areas and platform equipment

The platform covered areas more than offices and services areas, shall be structured in the following sub-areas:

- storage area with shelves.
- storage area on ground: covered areas in which storage takes place on the ground, as bulky and / or heavy materials cannot be allocated on shelves and, for optimal storage, must be stored under cover.
- delivery area: areas in which the incoming material is downloaded and verified (quality visual control)
- picking area: areas in which the materials are prepared for the final delivery
- packing area: areas where is available the packing machine
- cutting cables area
- material quality test area.

The uncovered area shall be structured in the following sub-areas:

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- delivery area: where the incoming material is unloaded
- transformers storage area (provided of oil recovery system):
- transformers to be repaired storage area
- new transformers to be dispatched
- cable reels storage area (on rack or on the ground)
- materials cantilever storage area (see figure n.1)
- storage area on ground (generally cable reels, metallic carpentry, insulators, plastic materials, etc.)
- external picking area (only for materials stored outside)
- storage area for:
 - scrap pending of sale
 - waste
 - container unloaded area
 - weighing system area.



Figure 1 Cantilever

As a general rule the following set of storage structures should be present in the platform in order to guarantee the safety and material integrity.

Pallet racking (see figure 2)

Generally are located in covered areas and composed of uprights and spans mounted in such a way as to obtain a cell structure or shelves. The base of the racks must be provided with suitable protection against accidental knocks arising from collision with the moving equipment.

In each cell or shelf it is possible to store a loading unit with standardized dimensions with maximum weight according with the maximum structure flow rate. The maximum capacity of the individual cell or shelf shall be indicated by signs posted on it.

The shelves area shall include a one-way circulation system, maneuvering space and lanes dedicated to the walkway clearly marked. The distance between the racks must be optimize in order to obtain space for circulation and movement of material.

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Figure 2 Pallet racking

Stall storage (see figure 3)

The storage of transformers shall be equipped with waterproofed stand, generally covered by a roof, and protection systems against loss of fluids and insulating oil contaminating the environment. These areas are provided with oil collection channels which converge in suitable watertight containment tanks.



Figure 3 Stall storage

Shelving cable reels (see figure 4)

Shelves are positioned in outside areas and consists of supporting modules on which cable reels of various sizes can be stored and handled by forklift with adequate capacity. If the cable reel size is above the maximum handling capacity it shall be stored on the floor.

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Figure 4 Shelving cable reels

Cutting cables area (see figure 5)

A cable rack shall be located in the covered area in order to cut and wrap the electric cables. This cutting area shall be equipped with a special reel machine and the operators shall be appropriately trained on this kind of activity.



Figure 5 Cutting cables area

Moreover, in order to perform material management in the platform safely and efficiently, the following other handling equipment utilities shall be present:

- lifting equipment (fork lift trucks and mobile cranes)
- fixed lifting equipment (cranes)
- loading assistance system (loading ramps, loading area)
- other equipment such as hand pallet trucks, packaging machinery (strapping and wrapping)
- trucks for material transport to the 2nd level warehouses.

The equipment shall be subject to a maintenance program in order to ensure compliance with the current health and safety laws.

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As is reported in the policy n. 39 Global Infrastructure and Networks Logistics Guidelines, the 3PL provider shall be in charge also to transfer the materials from first to the second logistic network. The transport service provided by the 3PL shall be generally performed by trucks. These vehicles shall be adequate to the delivery points to reach, that in some case could be in locations not easily accessible. Generally, these vehicles shall be compliant with the country reference legislation regarding the specific pollution control devices and shall be equipped with satellite anti-theft devices. All these vehicles prescriptions should be detailed in the logistic tender technical specification according with country legal and HSEQ rules.

The merchandise positioning in the store shall be performed on logistics areas in accordance with the logistics classes defined and according to the ABC analysis.

The positioning on the shelf/floor of the received materials will be performed by 3PL on the proper areas by registering them into the existent locations in WMS. Once the entire order has been registered on locations, the system will send through EDI towards Enel the reception and registering in stock report that will update the merchandise status into Enel informational system.

Materials Quality Testing Area

The 3PL provider shall make available, by Enel's request, this "staging area" for the materials to be submitted to Quality Control.

Enel shall communicate, in advance to the supplier delivery, the Quality Approval Identification Code of the materials to be moved in the Materials Quality Testing Area. After the material reception, 3PL shall communicate to Enel the material availability for testing.

7.6 3PL Information systems

The 3PL shall communicate with Enel using an Enel informational system interface (LMS-System Mobil Logistic) with the warehouse management system (WMS).

Creating the interface between Enel and the Logistic Operator shall be a logistic operator responsibility. After the adjudication of the logistic operator tender procedure, a contact person will be designated on Enel's behalf in order to ensure the technical support necessary to the execution of the systems interface.

The material and orders databases of the Logistic Operator shall be the mirror database of Enel.

The Logistic Operator shall hold also an informational system of type Transport Management System (TMS) and confirmation systems at the delivery's destination.

7.7 Activities performed in the Platform

The platform shall complete the following activities:

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Inbound Delivery:

- from supplier
- from repairer
- from second logistic level (reverse logistic flow from contractors or Enel warehouse).

Outbound Delivery:

- to contractors or Enel warehouses (2nd level)
- to suppliers for warrant returns and repair
- to customers for selling scrap and packaging return (e.g. reel)
- to other platforms for transfers or rebalance stocks (if available more than one platform).

Accounting Operations:

- Material reclassifications management (e.g. material scrap conversion)
- Ordinary and extraordinary inventory checks

Other activities:

- Claims Management regarding Enel materials damage

7.8 Inbound Delivery

Delivery of materials, new or recovered, from supplier

Concern new, reconditioned or repaired materials inbound from suppliers based on regular contracts.

Merchandise's notification and unloading

The merchandise's notification is made by Enel by transmitting to the 3PL, with at least 24 hours before the arrival of the truck, a message in the form of a delivery notice which will be sent through EDI merchandises unload order.

The trucks will be scheduled to be unloaded by the 3PL according to the standard operations established by him or according to emergency, if these emergencies have been communicated by Enel.

The merchandise shall be complete with all the documentation necessary to be received according to the instructions put at disposal by Enel.

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In the event of uninformed trucks arrive, these shall be treated according to the rules of solving nonconformities and Enel supervisor shall be notified. He shall verify the delivery and enter the information into Enel's informational system to generate the reception order to WMS.

Reception and inspection

The merchandises' reception check the accuracy of the shipping notes. All materials shall be properly labeled and for those that are stored in uncovered areas the use of waterproof labels is recommended.

When opening the truck, the Logistics Operator will make a visual inspection of the truck. In case of defected goods, these shall not be unloaded from the truck and an Enel representative shall be involved. If the merchandise visual inspection is good, it is unloaded and positioned in the reception area to be inspected.

The 3PL manages the operations according to the information received by local ND (inbound delivery dates) and the delivery request communication coming from suppliers. Inbound operation phase shall be:

- check of Transportation Document (TD) (when applicable)
- check of coherency with delivery notice, contract and specifications
- check of the integrity and compliance of the packaging towards Enel provisions according to the documentation existent on the platform
- check of annexed technical documents (for instance: Factory Acceptance Tests documents included in the transportation (see Operation Instruction n. 41)) according to Enel provisions from the documentation available on the platform
- check if the merchandise has a bar code or not.

If the incoming material is not coherent with the above documents checks, or shows discrepancies in terms of quantity or is visibly damaged, 3PL provider shall inform immediately Enel delegates in Platform (if present) or in any case Local ND units in order to ensure appropriate actions. As a general rule, material with non-conformities (damaged, or without the complete documentation test) shall not be accepted.

In order to ensure materials' traceability, a specific code (barcode, RFID, QR code) shall be applied in advance by Supplier to all the material to be delivered (in accordance with Enel country standards). In any case this operation shall be always done by 3PL in the platform communicated to Enel to enter it into the Database and in Master data materials.

To optimize the cable reel storage management and also for all the others "traceable materials", the supplier shall send before the delivery the relevant transfer information regarding the barcode list in order to track the entire product life cycle (this activity shall be performed directly in a LMS (logistic management system) where it is already available).

As a general rule, the traceable materials shall include at least meters, cable reel, power transformers and MV cells.

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Inbound of materials, new or recovered, from 2nd level stores (reverse logistic flow)

The reverse logistic flow shall be planned in accordance with the material transfer from the first to the second level in order to optimize the truck routes. Therefore, the arrivals of these materials shall be scheduled directly by the 3PL according with the information received from local ND about the material type and overall volumes to be collected (if available, the 3PL shall receive this information by LMS). Inbound operation activities shall be:

- RLOU material withdrawal request with detail of number of packages/ load units to be collected and their size and weight;
- 3PL collecting material on the same day of supply as per planned schedule. If this is not possible due to the truck available space, a dedicated material collecting shall be scheduled.
- Material unload and packages / materials and document verification
- Storage in the final warehouse locations according to the material type.

The reception in WMS by the Logistics Operator is carried out by scanning after the physical inspection. After scanning all articles, the merchandise will be in a received status in order to be positioned in the storage locations. Where a wrapping or packaging will be needed for the storage safety, these operations shall be performed by 3PL.

According to the above controls and inbound activities, the 3PL through WMS systems (if available or through any other kind of system interface between logistic operator WMS and Enel SAP system) shall confirm the inbound delivery / receipt and automatically generates in SAP the accounting registration.

7.9 Outbound Delivery

Material delivery from the first to 2nd logistic level (company warehouses or contractors).

Local ND and 3PL shall periodically share the materials deliveries requests in order to define a deliveries scheduling for each second level delivery point. After the scheduling consolidation shall be arranged appointment with the contractor or level 2 warehouse.

Delivery orders are generated by Enel into its own informational system. These are transferred through EDI into the 3PL WMS.

If no change in priorities occurs, the delivery orders in the system must be operated according to the order in which they have been received. The 3PL shall use the best picking method to optimize the activity in the warehouse and to obtain a good control of the resources and costs.

As a general rule some days before the scheduled delivery date, the 3PL shall perform the following activities:

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- material preparation in compliance with the minimum lot (e.g. for meters of the packaging minimum - cable reels provided full size);
- material packaging (if necessary);
- delivery documents preparation (in accordance with the legislation of the country).

The materials taken from the warehouse shall be positioned in the picking areas inside for those stored inside and outside for those stored outside.

The merchandise shall be checked and packed if is necessary. Whenever, is possible, the materials shall be positioned on cargos, wrapped and labeled with the order and recipient's data for an easier identification at unload.

After orders preparation these shall be checked by a different 3PL operator/supervisor by scanning the products so that at the end of the checking the order is closed by printing the dispatch note and/or other shipment documents.

The 3PL material unloading responsibility is different according to the 2nd level logistic network typologies:

- when the material delivery point is to the 2nd level contractor warehouse, the material unloading shall be a contractor responsibility;
- when the material delivery point is to the 2nd level Enel warehouse, the material unloading shall be a 3PL responsibility.

In case of the receiver does not accept the delivery or it is absent, the 3PL shall promptly notify the issue to local ND in order to define the appropriate action.

Outbound delivery to suppliers for warranty returns and repair

Damaged materials still under warranty shall be returned to suppliers; in case they need to be repaired, local ND shall share with the 3PL the materials list to be prepared for the third party picking. As a general rule, all the material that should be repaired or returned to the supplier for warranty, shall be collected in platform from the third party provider and the 3PL shall only pick it. Therefore, the transport to another site shall be a provider (supplier or repairer) responsibility.

The outbound operation activities shall not only include material preparation / packing but also the delivery documents preparation (in accordance with the legislation of the country) that should refer to the relevant active purchaser order (for the warranty) or the repair purchase order.

Outbound delivery for sale of precious scrap or other types and return materials (reels)

As a result of technical and economic assessment, Enel may decide to dispose of certain types of old/obsolete material no more reusable. These materials, after their reclassification may be subject of sale or become regular waste in accordance with current legislation in the country of reference.

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This kind of material shall be stored in a dedicated platform area in the same way than reels cable to be delivered back to the cable supplier according to contract prescriptions. According to the sale contracts and scrap disposal contract, the customers/providers shall collect these materials in platforms.

The following activities shall be planned:

- sales order preparation;
- schedule appointment with customers/provider in order to pick-up the material;
- legal documentation preparation (in accordance with the legislation of the country);
- updating the stock availability in the system.

Outbound materials transfer to other platforms or stocks rebalance

When in a logistics network more than one platforms are available, it may be necessary to transfer materials between them for some urgent need or simply to rebalance inventories and make them appropriate to the demands of contractors and warehouses 2nd level.

Local ND periodically issue a transfer orders list with the material detail to be transferred from one platform to another. An Outbound Delivery is issued by local ND to 3PL for the material preparation/packing and deliver.

In case the receiving platform does not accept the delivery or it is absent, the 3PL shall promptly notify the issue to local ND in order to define the appropriate action.

7.10 Second Level Enel warehouses

These material storage sites are located at Local Enel Operations site and are dedicated to the material needs of these units (generally network maintenance activities). They are supplied periodically from the first logistic layer (platform). They can also receive materials from different sources (e.g. direct flow from supplier for poles).

As already mentioned in the previously paragraph, when the material delivery is to the 2nd level Enel warehouse the truck unloading is a 3PL responsibility, therefore in the 2nd level ENEL warehouses may not be present loading equipment except trans pallets, up coils.

Materials in these sites shall be stored in a different area according to the kind of supply in order to facilitate also the inventory (materials purchased for different ways, electronic catalog, local purchases, etc.).

Local ND shall define at local level warehouse management operating procedure to include in the 3PL tender procedure in order to share with the bidders how to manage the material in the logistic network. In

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the same way also the warehouse management at the 2nd level (enel/contractor's warehouses) shall be defined including a periodical control on these prescriptions to be carried out by Local ND.

7.11 Second Level contractors' warehouses

These material storage sites are managed by contractors, who are responsible for all the material management activities in order to guarantee the material integrity. According to the contract condition, the contractors' warehouses shall be equipped with all the assets needed to carry out these kind of activities. Handling systems such as forklifts, cranes, management systems and security procedures for safeguarding the health of the resources used must be present.

In contractors storage sites the material loading / unloading is a contractor responsibility.

These warehouses are included in the logistics network and are supplied periodically from the first level platform according with the material deployment methodology defined by local ND.

For this reason, the contractor must ensure access to suppliers, 3PL provider and to any other carrier provider entrusted by ENEL and is in charge of materials loading / unloading as well as to ENEL employees and any other third parties authorized by Enel for inspections and other activities (e.g. technical inspections of materials, inventories, regarding security issues, etc.).

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8. MATERIAL INVENTORY MANAGEMENT

8.1 Generalities

The Inventory control involves keeping track of the stock that is already in the warehouse, such as what products are being stocked and how much of a particular item is available. It also involves aspects of warehousing designs, such as knowing where everything is and ensuring that the products are properly stored .

Therefore, inventory is the activity of checking the physical stocks, which allows to determine the conformity between stored materials and accounting data.

The 3PL shall be responsible of materials' inventory in the platform since the moment of reception until they are received by the Delivery Points.

Generally, inventories shall be done in platforms at least twice a year and at least once a year in secondary warehouses (Enel and Contractors), inventory calendar should be defined according with local laws and regulations.

Besides yearly inventories, each six months local ND units shall select some secondary warehouses to inspect on specific materials or for performing complete inventories.

In order to select the second warehouse inspect, local ND shall consider the inventory performed reports and choose the ones with the higher level of inventories discrepancy

For the second level warehouse in order to define the list of material to be inventoried local ND shall considered also all the material that temporary are not present to the warehouse contractors (e.g, material transfer to other providers for assembly, repairing or quality-testing or material storage by the suppliers)

An Operative Instruction including the activities detail to perform the inventories shall be issued at country level, by local ND, according with this guideline.

Local ND shall define at local level warehouse management operating instruction to include in the 3PL tender procedure in order to share with the bidders how to manage the material in the logistic network. In the same way also the warehouse management at the 2nd level (enel/contractor's warehouses) shall be defined including a periodical control on these prescriptions to be carried out by Local ND.

It is possible to distinguish different types of inventory for all the logistic warehouse levels:

- Ordinary inventories prescribed by civil and tax laws
- Extraordinary / on demand inventories- for any kind of extraordinary reasons (eg: 3PL closing contract, change platform)

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It is also possible to manage the inventory in a different methodology:

- rolling inventory - is a continuous inventories aimed at guaranteeing the permanent alignment between the real material stock consistency with the one present in the system. In this way the process is always under control and the inventory execution time is faster
- inventories with temporary logistic activities stop in all the warehouse (or a portion of it).

In any case, inventories shall be performed according to Enel procedures (global and local) and shall be executed outside the working schedule in order not to interfere with the ordinary activity.

The documentation for inventory shall be extracted from WMS and it shall be reconciled with the physical inventory, thus the data shall be correlated with the inventory within Enel system.

After performing an inventory, different situations may occur:

- physical inventory aligned with the Enel system stock accounting (additional activities are not necessary)
- physical inventory not-aligned with the system stock accounting either:
 - in positive, with a real material stock consistency higher than the system one
 - in negative, with a real material stock consistency lower than the system one.

As a general rule, any kind of stock registrations in the system shall be under the responsibility of Enel references and shall be done through the Enel IT systems. In case of absence of Enel references in platform, 3PL shall be entitled to perform any kind of stock registrations only in his WMS system connected with Enel one, using a dedicated interface and never directly in the Enel IT systems. The transactions shall become effective in Enel systems only after an approval from Enel employee in

According to the material accounting principles for the MT/BT materials, they shall be accounted always as “working capital”, in all the logistic network, and accounted as “asset” only after the installation certification in the network, therefore it's important to clarify and distinguish the asset responsibility to the stock and inventory management one.

The asset responsibility in the platform is in charge to the local ND unit, while the stock and inventory management shall be a 3PL responsibility according with a logistics services contract prescriptions (except in case of platform owned by Enel with internal employee management).

The asset responsibility into Enel 2nd level warehouse is in charge to the relevant Operating Unit head, and the stock and inventory management is under the local operational head responsibility.

The asset responsibility for contractors 2nd level warehouse is in charge to the same unit in charge to the relevant provider contract (generally the relevant Operating Unit), while the stock and inventory management is under the contractors responsibility.

Physical inventories shall be performed by the responsible unit jointly with the unit in charge to manage the stock, as is reported in the table below:

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Warehouse typology	Unit responsible	Controlled units / responsible housing stocks	Inventory misalignment registration
Platform	Local ND: logistic unit	3PL	Local ND: logistic unit
Enel's warehouse	RLOU: Relevant Operating Unit	RLOU: Relevant Operating Unit	Administration Finance and Control (Relevant Unit)
Contractor's warehouse	The same unit in charge to manage the contractor (generally the relevant Operating Unit) ¹	Contractor	Administration Finance and Control (Relevant Unit)

8.2 Controls and preliminary activity for the inventory checks

Inventory activity planning

The inventory plan, authorized by the local ND unit is shared with the 3PL for the 1st level and with RLOU and the AFC Relevant Unit for the 2nd level.

Platform (First level warehouses)

3PL manages the operations in the platform and is responsible for the stock management. A first stock inventory shall be carried out at the beginning of the contract and of course at the end (usually during the last three months), in order to ensure the transition from the 3PL to Enel. In case of inventory discrepancies, 3PL is responsible for any missing materials according to the contractual prescriptions.

According with the policy n. 39 Global Infrastructure and Networks Logistics Guidelines, during the contract, a rolling inventory shall be performed for all the material codes at least twice per year. The inventory plan, defined by the local ND unit, is shared with the 3PL and the Administration unit.

Second level warehouses

In line with the policy n. 39 Global Infrastructure and Networks Logistics Guidelines every year relevant local Operations unit, according to Local ND, shall define an inventory plan for every 2nd level warehouses

¹ in some case also local ND Logistic Unit should be involved

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that shall be executed during the year. During the contract, a rolling inventory shall be performed for all the material codes at least once per year.

A second level inventories activities Operative Instructions, with the activities detail to perform the inventories, shall be issued at country level, by local ND.

Preliminary activity

In general, before performing an inventory in all the logistic level warehouses, the following preliminary activities shall be executed:

- to ensure that all the pending material recordings are confirmed before the inventory date
- to prepare an inventoried material list with code reference to the physical storage location
- to appoint a referent who has full knowledge of the materials situation and storage places
- the contractor shall provide support with his staff in the inventory activity to the Country Operation controllers
- to report any material movements during inventory activity
- to ensure a separate storage for materials provided by Enel from similar goods of other customers (the materials must be always stored separated).

Additionally, only for the second level warehouses:

- the contractor shall declare all the materials physical storage location
- the relevant units local operation before the inventory starting shall proceed to freeze the IT system recordings during the inventory.
- the inventory date shall be communicate in advance to the contractor.

During the execution of the inventory the relevant units involved, shall:

- to take note of the contractors' work in progress with the material consumption;
- to take note of the inbound / outbound delivery for input or output materials.

8.3 Execution of inventory checks*Platform*

For the activity on the platform blocking material recordings is not necessary, therefore the inventory activity must be planned without compromising inbound or outbound activities.

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Based on the inventory materials list identified, the 3PL and the Enel referent shall complete the physical material count, verifying at the same time the correct material physical position. At the counting end, any misalignment will be the subject of further joint reviews.

In case the detected differences are not justified by a satisfactory explanation, they differences shall be analyzed seeking any feedback in the accounting documents (entry and exit documents, scraps etc.).

Activities report with an explanation of differences, shall be signed by Local ND and the 3PL delegate. At the end of the inventory activities, the results shall be registered in the system in order to achieve the inventory alignment (by the end of the day) and the same report could be transmitted also to the AFC Relevant Unit.

When the 3PL performs, for his internal rule or procedure, a rolling inventory, Enel could evaluate to take account of it.

Second level Enel warehouses

Based on the inventory materials list identified, RLOU's people complete the physical material count, verifying at the same time the correct material physical position. At the counting end, any misalignment will be the subject of further reviews.

In case the detected differences are not justified by a satisfactory explanation, they shall be analyzed seeking any feedback in the accounting documents (entry and exit documents, scraps etc.)

At the end of the counting, the results shall be registered in the system (by the end of the day). Activities report with an explanation of differences shall be signed by Country Operation responsible unit.

Once the inventory checking is complete, the Country Operation shall notify to the AFC Relevant Unit the inventory result.

The AFC Relevant units can either approve the discrepancies or ask Country Operation to define and implement corrective actions.

Second level Contractor's warehouses

As a general rule the contractor should be communicated the correctly storage material locations at the inventory time;

Based on the inventory materials list identified, the RLOU's people jointly with the contractor referent shall complete the physical material count, verifying at the same time the correct material physical position. At the counting end, any misalignment will be the subject of further joint reviews.

In case the detected differences are not justified by a satisfactory explanation, they shall be analyzed seeking any feedback in the accounting documents (entry and exit documents, scraps etc.).

Activities report with an explanation of differences shall be signed by Country Operation and contractor.

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At the end of the counting, the results shall be registered by Local Operation in the system (by the end of the day).

Once the inventory checking is complete, the Local Operation notify to the AFC relevant Unit the inventory result.

The AFC relevant units can either approve the discrepancies or ask the Local Operation to define and implement corrective actions.

After the inventory performing, depending on the results obtained we shall act as follow:

- physical inventory aligned with the system stock accounting. No additional activities are needed.
- physical inventory with positive differences with a real material stock consistency higher than the system one. In this case, the IT system shall be updated with the new information (real quantity for any specific material). A report with quantity alignment description shall be issued and signed by the party. In any case, the inventory economic increase shall not be accredited to the 3PL or contractor.
- physical inventory with negative differences with a real material stock consistency lower than the system one. In this case the Unit responsible of the inventory (local ND or relevant Local Operation Unit) shall proceed to:
 - update the IT system with the new information
 - issue a report with quantity alignment description signed by the parties

According to quantity and material typology and based on the relevant price available on the IT system, the amount that the contractor must pay to Enel shall be quantified.

In some case, Local ND and Local Operations unit may consider to apply special conditions such as compensation formulas codes between actively and passively codes within the same product category, according to the local laws and regulations.

Each unjustified inventory negative differences shall be also report to the security and safety units for necessary action.

As a general rule according with the local country law in order to consider also the fiscal effect of the negative differences, a specific document shall be issued by Local ND / Local Operations unit / AFC Administration Unit to justify the stock amount reduction of the company's assets.

8.4 Global ND control on Inventory Result

According to I&N RACI Handbook, Global ND is in charge to collect quarterly a set of logistic KPIs (as described in the latest Policy n. 39 Global Infrastructure and Networks Logistics Guidelines). These KPIs also include the ones related to the inventory results in each country:

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- **Inventory accuracy rate (%):** is the number of all inventory discrepancies (material code quantity) detected with a physical count. An high number express an inaccurate stock management;
- **Inventory accuracy impact (%):** is the value of all inventory discrepancies (material code value) detected with a physical count. An high value express an inaccurate stock management.

Global ND shall analyze these values according to the historical ones and comparing it with the same in the other country in order to identify critical situation and define with the local ND unit any kind of remediation plan.

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9. REVERSE LOGISTIC FLOW MANAGEMENT

Reverse logistics flow management refers to all those activities that in the process of construction, maintenance and demolition of power lines are required to manage and monitor the materials reverse logistics flows from the work site to the platform.

9.1 Generalities

The materials that could be present in the reverse logistics flows could be:

- Defective/damaged materials
- Used materials ready for reuse
- Reusable materials only after repair
- Obsolete material
- Scrap and waste material:
 - precious material (e.g.: copper and other metals or insulated cables available for sale)
 - sensitive material (e.g.: traceable meters)
 - dangerous material for the environment (e.g.: cables with dangerous substances, cells and equipment in SF6, oil transformers damaged with oil leak)

As a general rule, in order to increase the material reusability, all the materials removed from network that can be reused shall return in to the first-level platforms.

Handling of materials involved in the reverse logistics process shall be carried out by the 3PL that shall collect them from the secondary warehouses at the same time of delivery travel in order to avoid a dedicated transport.

This guideline does not apply to hazardous waste that shall be disposed directly from the second level warehouses and in any case respecting the country environmental law/regulations in force.

9.2 Recovered materials classification

Defective, damaged materials

During the network maintenance activities, it could happen to detect a failure on installed material that wasn't detected during the homologation process or factory acceptance test, or defects detected unexpectedly due to malfunctioning or constructive defects or due to the installation phase.

Therefore when the following cases occur:

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- Suppliers recall for defectiveness or improvements on materials already installed
- RLOU units detect failure during the ordinary network management monitoring activities
- Contractors detect failure during the ordinary network maintenance activities.

In order to restore electrical service these material shall be removed from the network by RLOU or by contractors. According to the defect found the material will be available to the provider at the plant, the RLOU or the contractor or, to facilitate the same provider from the first level warehouse and send it back to the platform through the reverse logistic flow, according to GNT instructions

In accordance with the relevant units (HQSE / GNT), the materials will be classified as stock in "quality control" waiting for detailed study or report of this failure. The material and component failure analysis is a GNT responsibility. Following these analysis, materials will be subject to subsequent recovery actions (repairs under warranty, repair or rework, scrap).

For the material removed for failure, RLOU in collaboration with local ND, shall verify if the material is covered by warranty. In this case it shall be acted as contractually foreseen. If the material is not covered by warranty RLOU and local ND shall carry out a cost / benefit analysis and repair it if is possible and convenient. If the reparation is not convenient, the material shall be reclassified as a scrap, and devaluated.

Used materials ready for reuse

Materials removed from installations that maintain their efficiency and reliability, can be reused in other installations. The redeployment takes place in this case immediately evaluating jointly RLOU and local ND, if is convenient to return the material in platform or retain it in the second level logistic network for others network works.

Removed materials for technological renovation unfit for reuse

In case materials removed from plants for obsolescence reasons are not reusable Local ND, according with the GNT technical evaluation and the type of material, stock level, frequency of use, age, shall decide if they are reusable or not and if they can be sold or must be disposed as waste.

Scrap and waste

All materials that cannot be reused and cannot be sold for recovering raw materials are classified as waste or scrap. These waste materials shall be managed coherently to the relevant country law.

Depending on the type of material, various disposal waste methods shall apply:

- disposal in charge to the contractor as contractually foreseen (e.g. excavation materials, components and electrical equipment containing no hazardous components for the environment)
- disposal / sale managed in the platform through sales contracts for valuable components and disposal contracts
- disposal / sale managed in the Platform through sales contracts for particular components (e.g. meters).

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Hazardous waste (such as transformers with or without PCB, oil-insulated cables, lead batteries or nickel-cadmium, etc.) shall be subject to disposal always at Local Operations warehouse (Level 2 logistic network) without going back to the platform.

9.3 Sales process

The material sales process shall be applied to all those materials that are no longer usable for technical reasons after the evaluation process described in the previous paragraph.

Local ND shall collect information (including physical and accounting data) about volume and nature of scrap available in the platforms and second-level warehouses stock.

Once the information have been collected and detailed, Local ND proceeds to the issue of a sales request to GP via IT system with all the relevant information to identify the assets to be disposed:

- the estimated amount for the entire quantity of materials to be sold, considering also any other cost for the buyers (any disposal costs, costs for removal of the goods sold to work site and related security costs, etc.);
- the contract duration request;
- all the elements to clearly identify the sale scope and limits;
- any materials identification codes for sale;
- terms and conditions for the assets withdrawal.

The sale contract management, issued by GP, based on the information present in the RoS (request of sale), is in charge to Local ND that shall issue the purchase of sales activation according with the contract prescriptions.

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10. RELATED ORGANIZATIONAL DOCUMENTS TO BE IMPLEMENTED AT COUNTRY LEVEL

Within corresponding geographical perimeter, each I&N Country shall issue, according with the provisions of the present document, a detailed material management and inventory operating instruction, issuing local operating instruction or updating existing local guidelines in order to adapt to this global policy.