Inventory Affects Efficiency and Economics
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The Supply Chain Team works year-round to ensure that materials and equipment are readily available for all the projects at hand – a task that requires cooperation from employees across the Association. The Supply Chain Team includes Allen Keene, supply chain manager; Jan Holder, supply chain management analyst; Tony Tisdale, shipping and receiving clerk; Buyers Kelly Johnson and Tony Williams; and Storekeepers Winford Cole, Allen Moree, Sammy Odom, Prentiss Newman, and Kyle Aultman.

In 2003, the team undertook a data conversion from the old Legacy database to the Maximo system. The conversion was very aggressive and resulted in an unavoidable loss of some information related to items and manufacturers. Another conversion took place in 2008 – from Maximo to the Oracle Enterprise Business Suite (EBS) – and other data was not able to be transferred. For the past year, the team was been working diligently to complete the database and standardize the formats used by SME's different warehouses (Plant Morrow, Plant Moselle, FOC, and the vehicle maintenance shops). The goal is to compile the manufacturer and part numbers for each inventory item, along with adding manufacturer specs and drawings to the EBS database.

"Our database had become a growing problem because of the inconsistencies and non-standardized business processes," Holder said. "We are adding as much and as detailed information as we can to keep the process as consistent and reliable as possible. We will begin addressing the necessary patch releases that correct problems in the software functionality in the first quarter of this year to determine when to install the latest releases. This effort will require extensive testing and coordination among all users and the Business Information Systems group."

In addition to standardizing the inventory database and process, the warehouses have undergone their own internal reorganizations – from item locations in the warehouses to categorization and labeling. Each item belongs to a specific bin location within the warehouses that makes the process of locating the item quick and easy.

The warehouse at Plant Morrow has experienced significant challenges over the past year. Due to the large quantity of items stored there and the high turnover rate of those items, the task of putting the warehouse in order and organizing data has been an ongoing one. The plant completed its first full outage (both units shut down) in more than ten years in October, creating a need for inventory items and data that were not readily available.

"Winford Cole and Allen Moree at Plant Morrow worked very hard to research old databases in order to locate the necessary information," Holder said. "A huge amount of inventory passed through the warehouse during that time, and the end result was a success. The outage forced us to tackle some of the toughest challenges in our efforts to standardize data."

"Several items that were needed for the outage had not been used in many years," Moree said, "but we stayed on top of things and were able to find the information that we needed for the materials that were requested. We received a lot of assistance from the crews here at the plant when it came to identifying part numbers for the specific inventory items."

“We manage over six thousand line items in the Morrow warehouse,” said Cole. “That is a value of more than five million dollars. The system we are working with now has definitely helped the process become more standardized. It is an ongoing process to track down the manufacturer and part numbers for each item, but we are making great strides.”

Sammy Odom has worked in supply chain for several years. After the construction of the new warehouses at Plant Moselle and the FOC in 2007, Odom joined the Plant Moselle staff. “I have seen many changes in the inventory process during my time at South Mississippi Electric,” said Odom. “The obvious change has been the transition from handwritten orders to the computerized systems. Oracle EBS has caused us to standardize our procedures and keep much better records of orders, shipments, and receiving reports. The software provides all of the information that we need in a centralized location, rather than having to dig through paperwork to find what we are looking for.”

Along with reorganizing the warehouses, the Supply Chain Team also considered the shelf life of several items and determined that certain items should be stored in climate-controlled facilities. At Plant Moselle, items such as computer cards, electrical boards, and various wood materials were moved into available climate-controlled rooms.

“The better care we can take of our materials, the longer they will last,” said Odom. “As a team, we try to make wise decisions regarding each item in inventory, including improving their quality and extending their shelf life. It is all part of making the system work as best as possible.”

With the completion of the FOC, inventory materials for headquarters and transmissions projects were moved into the new 20,000-square-foot warehouse. The move involved compiling materials from several different locations (Plant Moselle, Headquarters, and off-site climate-controlled storage facilities).

“Our warehouses operate on basic supply-and-demand principles,” said Prentiss Newman, storekeeper at the FOC. “As materials are requested through work orders and taken out of inventory, items are reordered based on upcoming projects and the item’s lead time for delivery. Maintaining inventory requires a good bit of juggling – lead times, project delays, and transmission emergencies all affect the balance of inventory in the warehouse.”

Transmission Construction and Maintenance Planner Tracy Stiglets is responsible for working with planning and design engineers on the preliminary list of materials needed for each line project and entering a work order into EBS.

“Many of the project details – such as pole dimensions and bolt shape – are not specified in the preliminary project description,” Stiglets said, “and many of the details cannot be determined until later in the project process – creating several unknowns. Although this can sometimes result in excess materials being reserved in the warehouse, because of the nature of our projects and the overlap of many of the items, the materials will eventually be taken from inventory and used.”

Because of the many variables associated with ordering and maintaining materials, maximum and minimum levels are determined for each inventory item. Once an item moves through the work order process, a reorder is triggered if the minimum level has been reached.

Shipping and Receiving Clerk Tony Tisdale inspects and receives everything that comes through the FOC – including items for the Headquarters facility. “I go through each package and compare the items received with the items that were ordered,” Tisdale said. “Many times, depending on the size of an order, it might require several shipments before it is complete.”

Along with providing materials for new construction projects, Newman and Storekeeper Kyle Aultman work with the various crews on routine maintenance and repair projects.

“Each department – including substation maintenance, relay, metering, communications, transmission, and the others – relies on the warehouse for materials,” Newman said. “The Oracle system works well for ensuring that the materials are on hand when the projects begin. As designs change and decisions change, challenges inevitably arise; but at the end of the day we all work together to get the jobs done.”

At the end of each calendar year, the Supply Chain Team completes an internal audit with Michael Barnes, internal auditor, and Mike McCrary, director of business information systems and advisory services. Holder coordinates cut-off dates for receiving materials and schedules the inventory assessments at each warehouse location. Every inventory item is physically counted and compared to the count sheets from the EBS database. Any variances are reconciled and adjustments are made accordingly.

“The inventory process has greatly improved over the years,” said Allen Keene, supply chain manager. “We recently completed the 2009 internal audit and noticed a considerable reduction in the effort required to get through the project. Employee cooperation across the Association can be credited for that major improvement in the inventory process.”

Standards Committees have been created at each facility to further aid in the inventory process. The committees consist of approximately six employees from various departments who work together to approve new inventory items and manufacturers, and to also designate obsolete items.

“The Standards Committees work very hard to identify new inventory items based on Inventory Change Requests that are submitted by employees,” said Keene. “The diverse make-up of the committees offers a wider view of issues and needs associated with materials, which is important to making wise purchasing decisions. The formation of the committees is fairly new, but we have already seen the value of having employees outside the Supply Chain Team helping to make inventory decisions.

“The importance of inventory touches every maintenance function of the Association,” Keene added, “and the Supply Chain Team is taking great steps to continually improve our system. The Standards Committees are a new addition that has proven to be very effective in standardizing the business processes that are required. To us, a successful inventory system keeps the plants running, the lines in the air, and the substations energized. At the end of the day, we work to ensure that no project is put on hold due to lack of materials.”