

Concept:

Install RFID technology in SNC's Supply Chain facilities to:

1. Automate data entry to the extent possible for Receipts, Stocking and Issue of Tools and Material
2. Reduce or eliminate the need to man Supply Chain Issue Points by using this technology to establish real time tracking of parts stored in Tool Rooms and Warehouses
3. Provide the capability to establish "Virtual Warehousing" at almost any location at a plant site
4. Establish a delivery program eliminating the need for customers to travel to and from warehouses and tool rooms to pick up material/tools
5. Provide real-time inventory and tool tracking and accountability
6. Control material accounting so that the parts are not removed from inventory until actually used and immediately placed back into inventory if not used at end of job.

Automated Data Entry

- RFID technology provides the capability for warehouse personnel to simply pass most items near RFID readers to accomplish the needed transaction. The material is tagged with RFID capable labels which are automatically scanned by RFID readers located in handhelds, material carts, virtual fences and on forklifts. Data entry is automatically accomplished as the material is passed by the readers.

Reduce or Eliminate Manned Issue Points

- RFID provides capability for issue points to be “Self-Serve”.
 - The system secures the warehouse/toolroom areas to prevent entry unless fully authorized
 - Two components for entry are required – A valid work order and a valid user id
 - The system tracks activity and material upon entry
 - The system can prevent exit or notify should unauthorized activity occur
- SNC expects to eliminate the need for nights and weekend coverage. Customers will be authorized to enter these areas during non-shift or off-hours to gain access to tools and materials for un-planned or emergency needs.

Establishing “Virtual Warehousing”

- Equipment used in the system provides the capability to set up “mobile” storage areas
 - Enclosed, physically secured storage areas can be set up with “Sea-Lands” or Enclosed Trailers using AccuPort with locking doors
 - VUE Technology readers can be set up to form “electronic fences” that will read the material in the area and capture activity for the area
- SNC expects to establish mobile “Virtual Warehouse” locations and delivery trailers to support work in outside areas that are not near established delivery points. Examples would be staging areas for outages or areas where fabrication work is needed away from established locations.

Establish a delivery program

- RFID allows for delivery of tools and material to designated staging areas using the same equipment for establishing “Virtual Locations”
 - Chain of custody for the material is maintained fully by the Supply Chain until the moment the customer exits the staging area with the tools/material
 - The need for the customer to travel to tool rooms or warehouse issue points is eliminated.
- A lower level of skill qualification for selected warehouse personnel can be established for delivery of material and tools to the work site

Real-time inventory tracking and accountability

- RFID provides the capability to “see” your inventory 100% of the time
 - Provides capability to instantly inventory an area for tools and material
 - Provides capability to locate misplaced tools and material
 - Reduces or eliminates the time needed to complete required physical inventory counts
 - Reduces or eliminates lost items preventing duplicate orders to replace lost tools/material
 - Provides capability to “walk down” both warehouse and Maintenance areas to locate RFID tagged items
- This technology can be expanded to include FME control

Control material accounting

- Material is not charged from inventory until actually used
 - Inventory replenishment is enhanced due to material remaining under Supply Chain control until use
 - Current state:
 - Issue and charge material in advance (sometime weeks in advance)
 - Maintenance budgets impacted weeks or months before actual use
 - Reorder can occur almost immediately after issue with the potential for overstock due to potential material return
- Material returns are accounted for much more efficiently
 - Material is returned to staging area where it is automatically recorded/tracked
 - Material return transactions are finalized upon inspection by SC personnel
 - Eliminates trips to the warehouse to return material and uncontrolled material
 - Provides for easy control/tracking of returned material
- Tool Accountability is treated in a similar manner

Current State:

Customers travel to Tool Rooms and Warehouses

RFID Benefits:

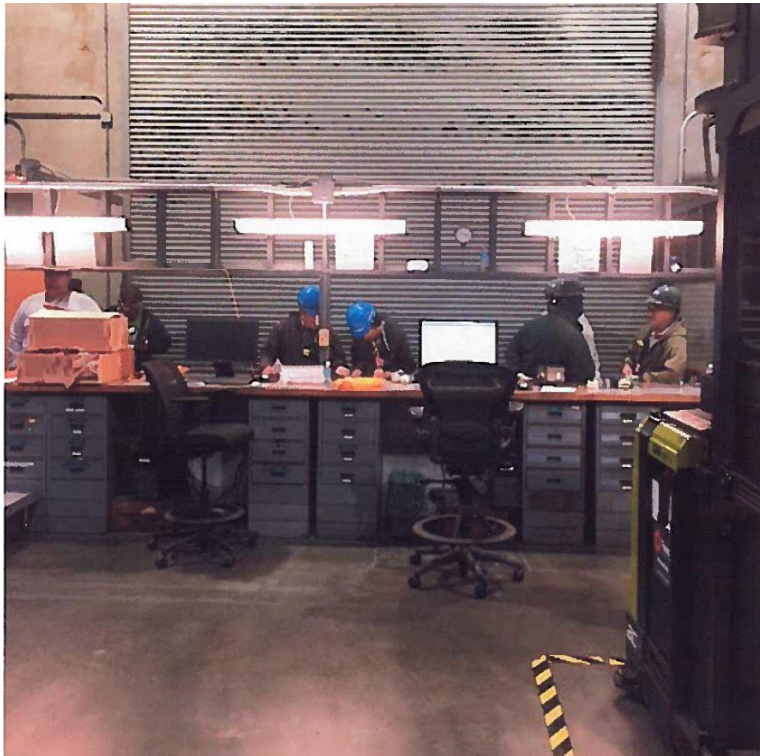
- Estimated 75 Supply Chain man hours saved per week for data entry
- Estimated 150 Maintenance man hours saved per week retrieving tools and material
- Reorder and material return greatly improved
- Labor/overtime savings annually through reduced manpower needs, reduced outage overtime needs.

No Tools Accountability

RFID Benefits:

- Tools routinely abandoned or taken – Full tracking of tools with enforceable accountability
- Currently spend significant dollars in annual tool replacement
- Expect 50-75% savings in annual tool replacement
- Multiple “ found hot tool” incidents annually
- System will track tools throughout the decontamination process – No replacing tools trapped in decon – You know where they are!

- What We Expect to Eliminate or Reduce



Man hours spent waiting on or retrieving material!

Technology

Tool Room Portal



Portable/Fixed Scanners



Technology

RFID Label Stock



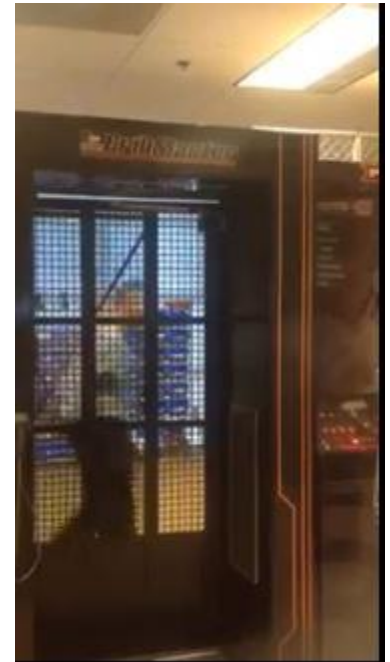
RFID Capable Printers



SNC Supply Chain RFID Initiative

SOUTHERN NUCLEAR

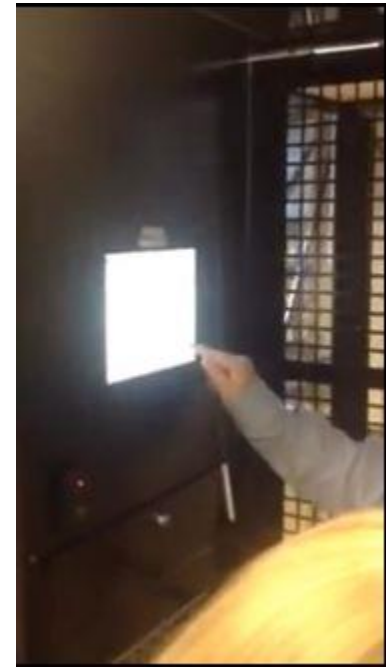
Efficiencies will be gained from the closure of issue points and installation of non-manned “staging areas”. RFID constantly tracks material in the area and the entry and exit of personnel from the area.



SNC Supply Chain RFID Initiative

SOUTHERN NUCLEAR

Real time live transactions will occur without the need for Stores personnel or data entry.



SNC Supply Chain RFID Initiative

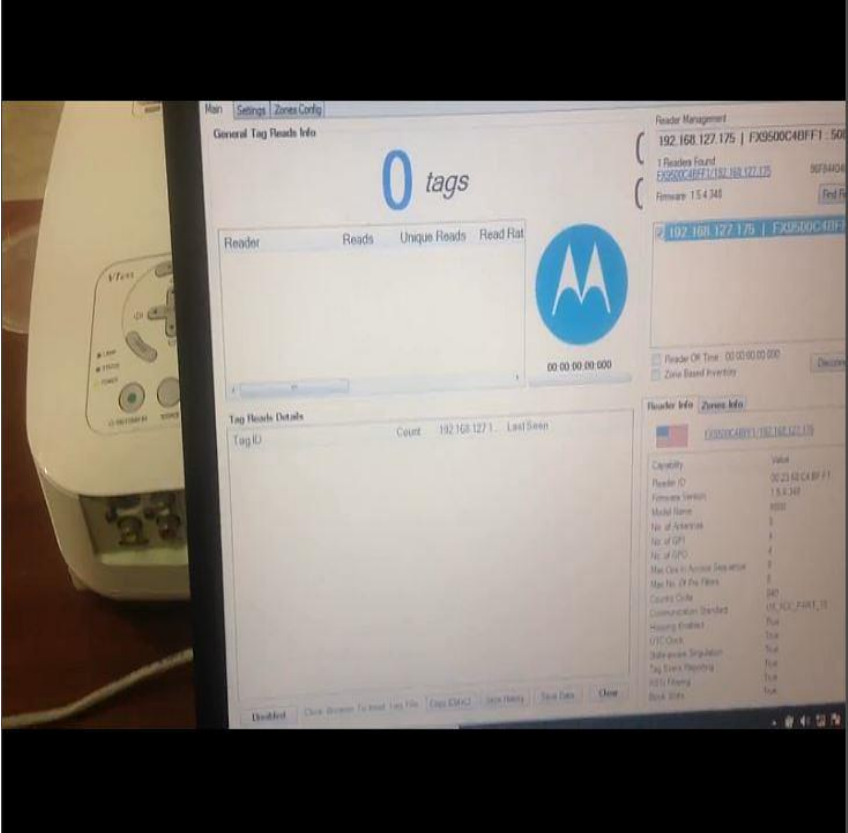
SOUTHERN NUCLEAR

Real time “Live” monitoring of inventory can be provided with VUE Technology which can “read” RFID signals over large areas and is capable of covering entire warehouses.



SNC Supply Chain RFID Initiative

Count rates without the need for data entry are in the thousands per minute.



- How will we accomplish this?
 - Maximo to RFID interface will send data from Maximo to the RFID system.
 - RFID system will monitor the data and perform transactions electronically
 - Completed transactions will be sent back to Maximo.