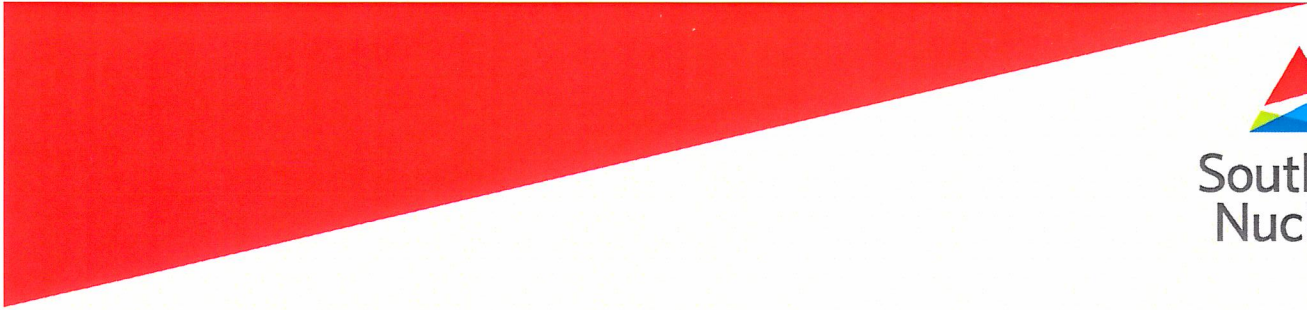


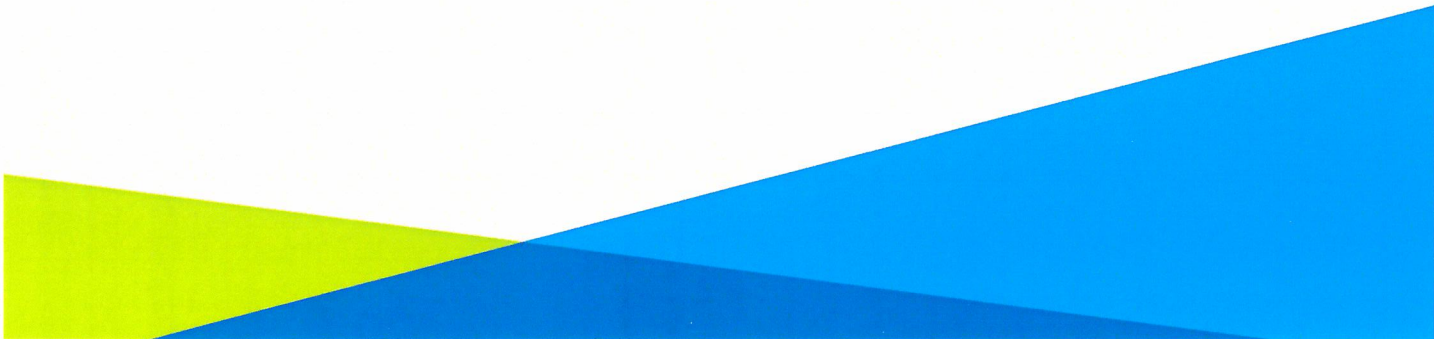
Southern
Nuclear





RFID TECHNOLOGY

Brad Tapley



Southern Nuclear Supply Chain RFID Initiative

What is RFID Technology?

- RFID Technology is the use of radio waves to read and translate information that is stored on a tag.
- Many credit cards have RFID chips.



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

- Automate data entry to the extent possible for Receipts, Stocking and Issue of Tools and Material
- Reduce or eliminate the need to man Supply Chain Issue Points and establish "Virtual Warehousing" that provides real time inventory tracking
- Establish a delivery program eliminating the need for customers to travel to and from warehouses and tool rooms to pick up material/tools
- 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.

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RFID 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.
- In the current setup, transactions take a warehouseman about 15 mins to complete. More time is lost by craft personnel in transit from warehouse to work areas. Including wait times at the issue counters, approximately 45 minutes are lost during the transaction.



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RFID provides capability for issue points to be “Self-Serve”

- The warehouse and toolroom areas are secured to prevent unauthorized entry.
- A valid work order and user id are both required for entry.
- The system will track activity and materials upon entry and will notify the administrator of unauthorized activity.

This technology eliminates the need for around the clock 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.



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Establishing “Virtual Warehousing”

- 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.

Examples would be staging areas for outages or areas where fabrication work is needed away from established locations.



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RFID allows for delivery of tools and material to designated staging areas using the same equipment for establishing “Virtual Locations”

- Supply Chain maintains control over the material until the moment the customer exits the staging area with the tools or material.
- Customers will no longer have to travel to the warehouse to obtain material for planned work.

A lower level of skill qualification for selected warehouse personnel can be established for delivery of material and tools to the work site



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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 and locate lost or misplaced tools and equipment.
- Reduces or eliminates the time needed to complete inventory counts.
- Provides capability to “walk down” both Warehouse and Maintenance areas to locate RFID tagged items.

This technology can be expanded to include FME control which will greatly reduce time required for containment cleanup.



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Enhanced Material Accounting

Materials remain under Supply Chain control and are not charged from inventory until actually used.

- Budgets are not impacted weeks or months before use
- Material no longer gets misplaced after issuance
- Overstock due to material returns is significantly reduced



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Material returns are more efficient since 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



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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.



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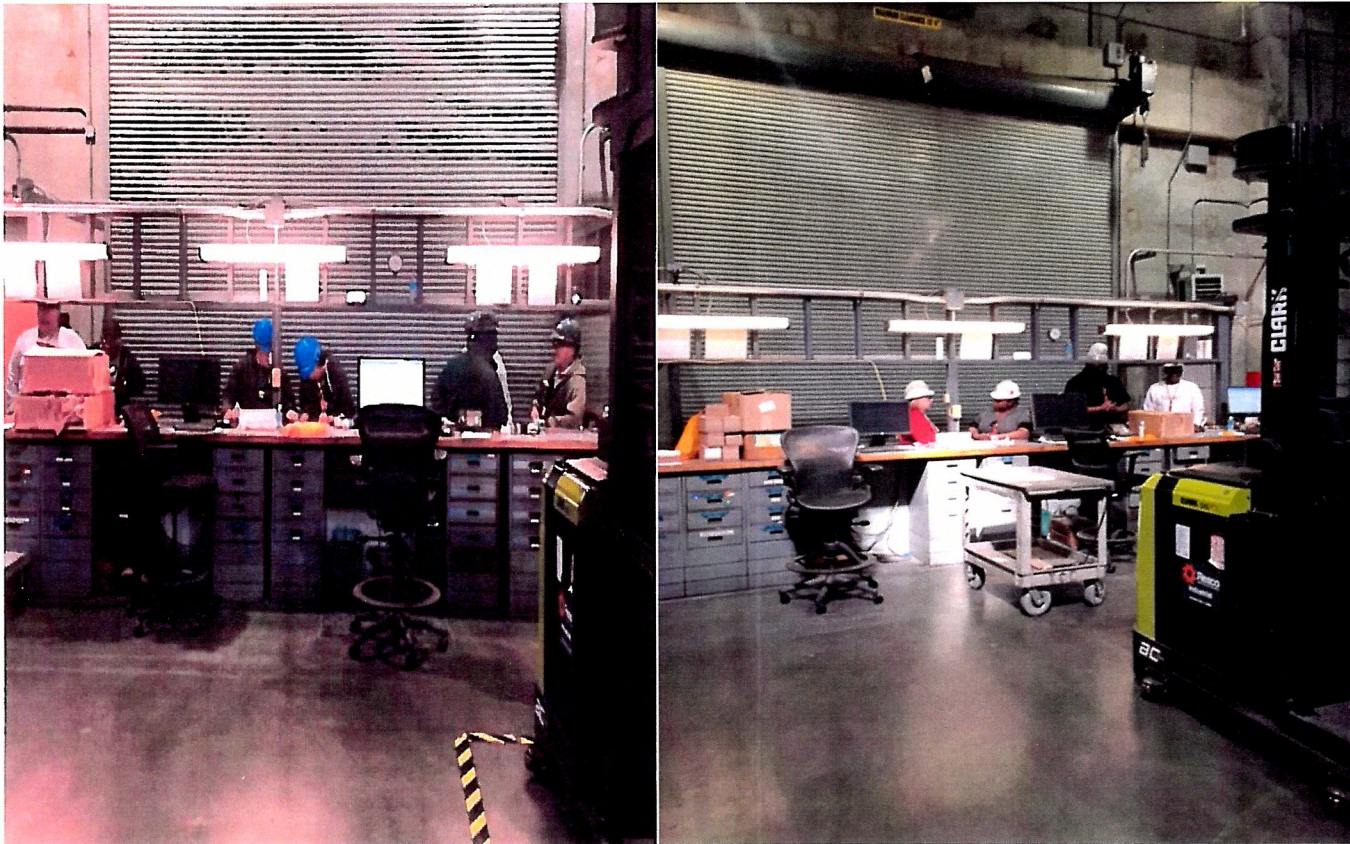
Improved Tool Accountability

RFID Benefits

- Tracking of tools with enforceable accountability
- Currently spend significant dollars in annual tool replacement
- Expect 50-75% savings in annual tool replacement
- System will track tools throughout the decontamination process – No replacing tools trapped in decon – You know where they are!



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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.

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



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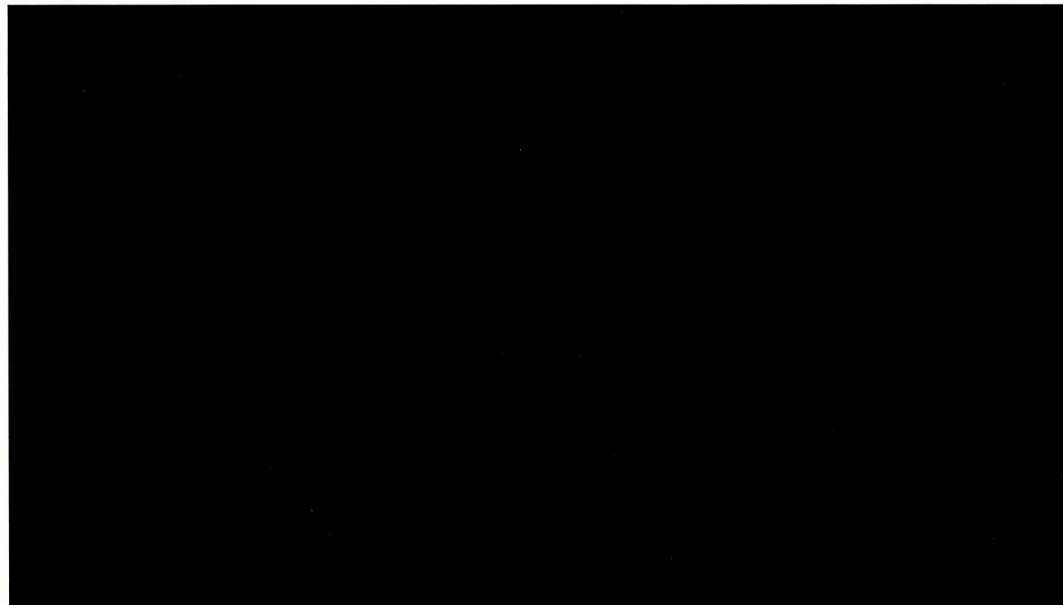
How does RFID become a reality for Southern Nuclear?

- Maximo to RFID interface will send data from Maximo to the RFID system.
- Complete tagging at Hatch, Farley and Vogtle
- RFID system will monitor the data and perform transactions electronically
- Completed transactions will be sent back to Maximo.

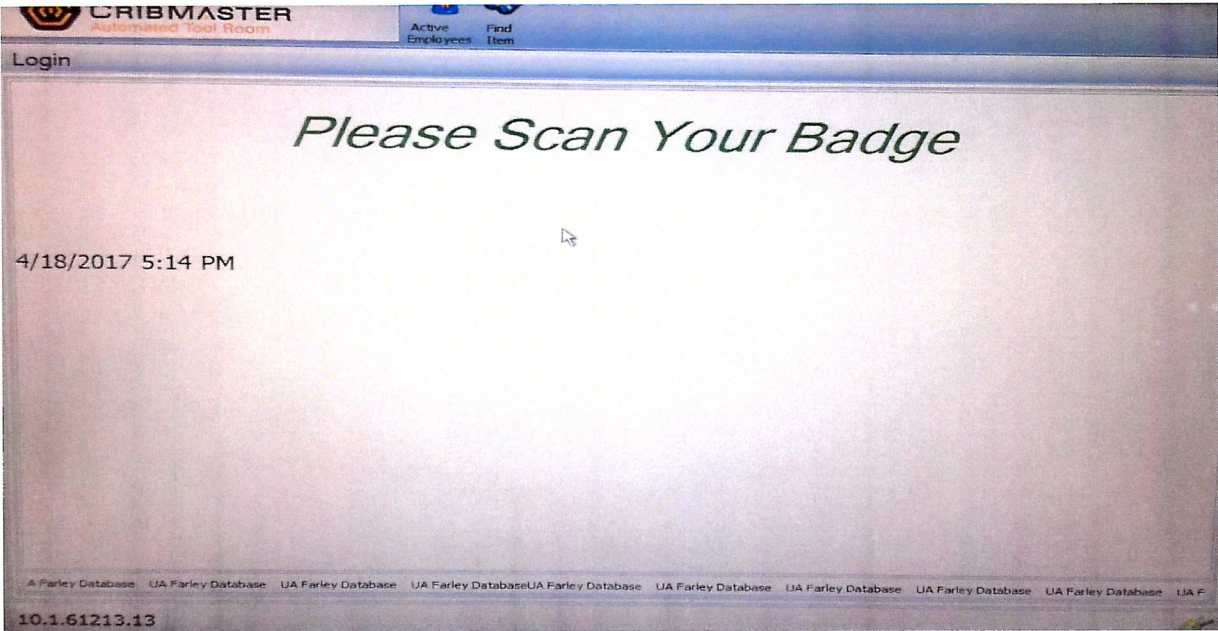
Crew of 9 Currently working to tag Plant Vogtle's storeroom of 80K items



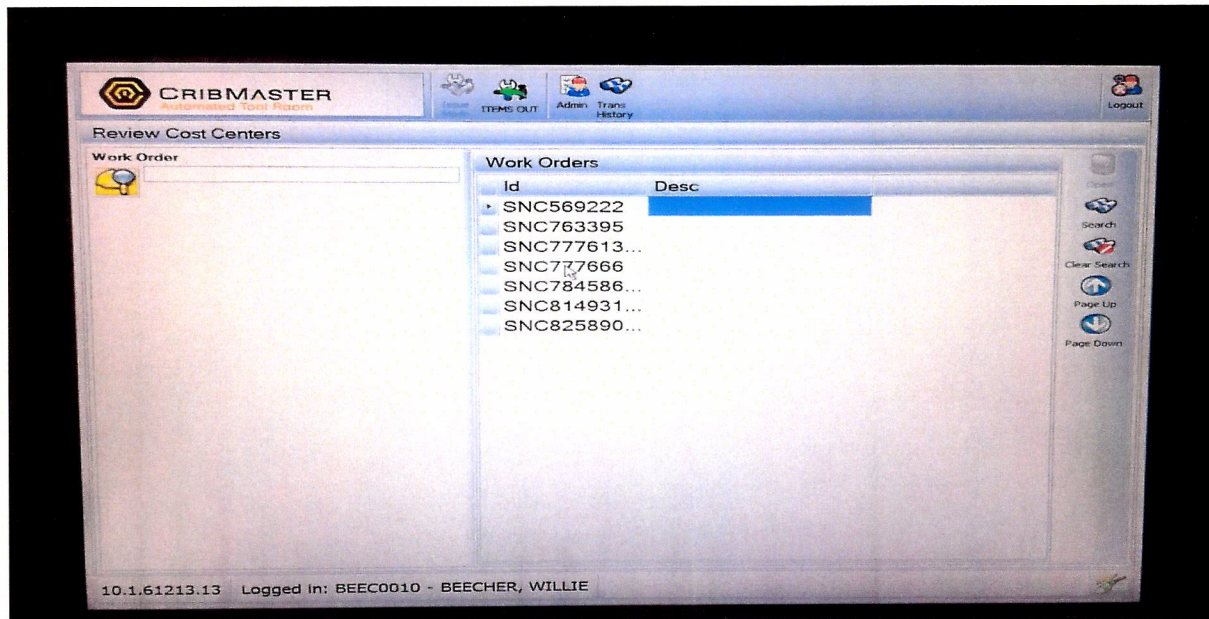
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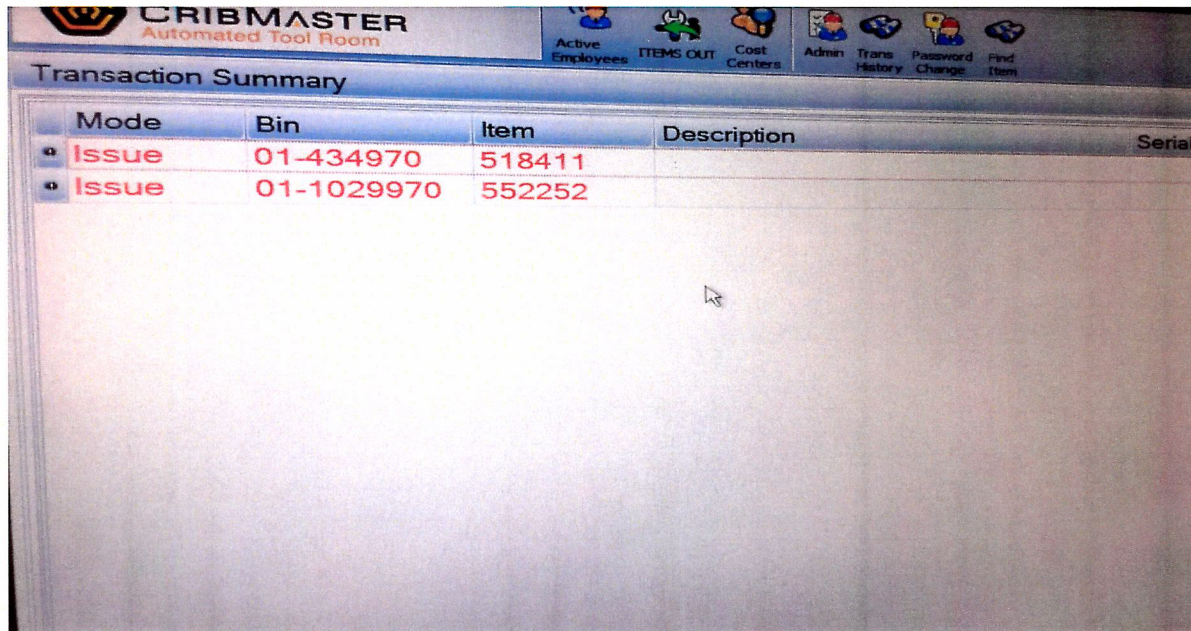
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The screenshot displays the CRIBMASTER Automated Tool Room software interface. At the top, the logo for CRIBMASTER is visible, along with a navigation bar containing icons for Active Employees, ITEMS OUT, Cost Centers, Admin, Trans History, Password Change, and Find Item. Below the navigation bar, the title "Transaction Summary" is displayed. The main content area features a table with the following data:

Mode	Bin	Item	Description	Serial
Issue	01-434970	518411		
Issue	01-1029970	552252		

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