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RFID in Harsh and Hazardous Environments 2021



RFID Strategies and Best Practices for End Users in the Energy Industry

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What's Covered

- Point solution versions infrastructure
- Taking a strategic approach to RFID
- Creating an RFID team
- Setting clear goals
- Mapping processes
- Managing change
- Scaling



Point Solution

- Solves a specific business problem
 - Improves worker safety
 - Manages access to secure sites
 - Locates assets in real time
 - Condition monitoring



RFID as Infrastructure

- Acts as a platform for many applications all at once
 - Think of the Internet
 - Email
 - Document/information sharing
 - Information sharing
 - Marketing



A Strategic Approach to RFID

- Creating an infrastructure enables the entire enterprise to leverage RFID
 - Construction of new facilities
 - Materials handling
 - Production
 - Inspections and maintenance
 - Product delivery



Creating an RFID Team

- It is important to include representatives from the above areas of the business
- Additional members that should be included:
 - Finance
 - IT
 - Marketing



Setting Goals

- RFID is not a strategy
- RFID needs to support the company's overall strategy and business goals
 - Walmart vs Prada



Setting Goals

- What should your goal be?
 - Produce the most oil at the lowest cost
 - Be the company with the best safety record
 - Be the best at serving our customers needs
 - Complete every project on time and within budget



Map the Process

- What happens to a piece of drill pipe or spare part from the moment it is acquired until the moment it is disposed of?
- Answering this will help determine what type of tag to use and what kind of *useful* data can be collected on the object



Choose the Technology

- Active RFID for larger assets tracked over long distances
- Passive tags for smaller objects tracked over shorter distances



Things to Consider

- Over what distance do I need to track an object?
- What location accuracy is required?
- What is the object made of?
- What other RF devices operate in the area?
- Does the RFID system need to be intrinsically safe?

More Things to Consider

- Do I need to monitor the condition of the asset?
- Will the tag be subject to extreme temperatures or physical punishment?
- How important is the security of the data on the tag?



Prioritize, Prioritize, Prioritize

- Which applications will deliver the most short-term value?
 - Greatest cost savings
 - Greatest contribution to company goals
 - Greatest contribution to worker safety



Start Small and Expand

- Start with an application that will give you a return on investment
- Have a clear idea of what the overall infrastructure will look like
- Each new application should build on the existing infrastructure
- The final product should be an enterprise-wide solution

Pilot the Application

- Make sure the technology works in your environment
- Make sure the system delivers the expected ROI
- Work out any kinks



Pilot the Application

- Identify primary and secondary technology suppliers
- Role out the application
- Expand the rollout



Change Management

- People will be suspicious that they are being tracked or will be fired
- Explain what data is collected and why
- Explain how RFID will improve operations
- Make sure system complies with union rules
- Train people on the basics of maintenance

Keys to Ensuring Success

- Make sure one senior executive “owns” RFID and is the champion for the project
- Have a clear set of goals and a phased implementation for achieving them
- Educate those who will be affected by RFID and get them to buy into it

Questions?

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THANK YOU

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