Streamlining the AtEX inspection process

by implementing effective, paperless Ex maintenance and inspection strategies
Ensure regulatory compliance of electrical installations in hazardous areas:

- make sure that equipment has an inspection and maintenance plan in accordance with IEC 60079-17
- so that it continues to be safe to operate and
- this can be demonstrated to the satisfaction of the HSE
The key driver - difficult to demonstrate compliance

- No easy visibility of asset register
- Multiple Excel spreadsheets to maintain
- Whilst reasonably accurate, contained minimal equipment information
- Evidential trail; offshore techs “could be accused” of selecting easiest equipment to carry out detailed inspection
- Paper based inspection checks with records held offshore
Proven systems for managing asset integrity & reliability

What we wanted to achieve

Replace paper-based inspection process

- Easy visibility of single asset register from any location
- Paperless inspection checks with onshore access to live data
- Visible tagging of equipment
- Documented, auditable evidence that different equipment is selected for a detailed inspection each time
- More detailed information to maximise effectiveness of data, eg access requirements
- Able to demonstrate compliance with legislation
How we achieved it

- Involved offshore team early in the project as their buy-in was essential and their input proved useful in template design.
- Delivered a system pre-configured with existing data with database structure designed to suit Thistle layout, including existing plot plans.
- Developed download lists to provide evidence that, over time, every item will have a detailed inspection grade.
- Improved offshore communications so we could take advantage of Cloud-based service.
The Result

Data cleanse, import data from Excel register & attach relevant inspection templates

Plot plan schedule determined by Maximo

Download inspection forms to intrinsically safe PDA

Upload templates to automatically update register, results immediately visible onshore

Carry out inspection, perform & record remedials completed, create & inspect new items found

Attach & scan RFID tag (one-off task)

Proven systems for managing asset integrity & reliability
Benefits

• Accurate up-to-date Ex equipment register, accessible from any location with relevant access permissions
• Quickly advise construction of cable transit availability; significant time saving
• Better planning of shutdowns with easy visibility of remedials requiring shutdown
• Document management functionality; include block drawings, loop diagrams, cable routes, cable spec - new installations can be traced
• Significant reduction in administration
• Demonstration of regulatory compliance
Conclusions

• Proven system for management of electrical installations in hazardous areas
• Flexible, easy to use software that offshore team are happy to use
• Can be utilised for other applications - looking at how TransForm can be expanded to include other routine based data collection checks
• Able to provide limited, security controlled access to external bodies such as HSE, Lloyds Register, Wood Group PSN
• Complete visibility of remedials completed at time of inspection without raising Work Order
Thank you for your time

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