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Human Reliability: The Key to Enhancing Asset Reliability

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In industrial maintenance, Human Reliability is crucial for improving asset reliability. Understanding and mitigating human error can significantly reduce equipment failures and **extend asset life**.

Common Causes of Human Error in Maintenance

Human error significantly contributes to equipment failure, accounting for 70-80% of cases. The most common causes include:

- Lack of communication
- Complacency
- Lack of knowledge
- Distraction
- Lack of teamwork
- Fatigue
- Lack of resources
- Pressure
- Lack of assertiveness
- Stress
- Lack of awareness
- Norms

The Importance of Repeatable Procedures

One of the most effective strategies for reducing human-induced failures is using repeatable procedures. These ensure that maintenance tasks are performed consistently, regardless of the technician's experience level.

For instance, consider two technicians given the same task: **replacing bearings**. A technician following a detailed procedure, including specifications and tool requirements, is likelier to complete the task successfully, resulting in longer equipment life than a technician relying on general knowledge and basic tools.

Steps to Implementing Effective Procedures

1. **Select Skilled Technicians:** Choose two of your best maintenance technicians to develop repeatable procedures.
2. **Provide Examples:** Share examples of best practice procedures to guide the development process.
3. **Identify Critical Procedures:** Focus on procedures that will have the most significant impact on equipment reliability.
4. **Draft and Revise Procedures:** Write and refine procedures based on the identified needs.
5. **Implementation:** Roll out the new procedures across the maintenance team.
6. **Measure Effectiveness:** Use a dashboard to track the effectiveness of the procedures and make **data-driven decisions**.
7. **Continuous Review:** Regularly review and update procedures, especially for critical assets.

By prioritizing human reliability and implementing repeatable procedures, companies can reduce the likelihood of human error, improve equipment reliability, and ultimately increase operational efficiency. Embracing these practices is essential for any organization looking to optimize its maintenance processes and ensure long-term **asset performance**.

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About the Author



Ricky Smith

Ricky has over 30 years' experience working as Maintenance and Reliability Professional for companies such as Exxon Company USA, Alumax Mt Holly, Kendall Company and the US Army. In additi... [Read More](#)

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