

Effective Maintenance Work Procedures

“Tool Box Training” – Journey to World Class”



Recommendation: Review “Failure Modes Driven Strategy – Tool Box Training Session” first

Effective Work Procedures are key to success in Work Execution

Work Execution: is the maintenance function which involves how we perform Preventive Maintenance, Predictive Maintenance, and Corrective Maintenance effectively.

Measurements of Effectiveness: Mean Time Between Failure, Rework, Line Efficiency, Lower Parts Cost, Emergency vs PM Labor Hours, etc.



Work Execution Principles:

1. Work Procedures must be repeatable
2. Work Procedures must be clear and concise
3. Work Procedures must be measurable for performance management.
4. Work Procedures must have standards and specifications defined.
5. Work Procedures must be followed in a discipline manner.
6. Work Procedures must drive consistency of execution (especially among people of different skills levels).
7. Work Procedures must be QA/QC by management to ensure adherence to work execution standards

Value of Effective Work Procedures

- No Concern about how to train new employees
- No Concern about people retiring, all their knowledge is in a procedure.

“In the absence of standards we have chaos”

- Discipline in work execution = optimal reliability of process and equipment reliability.

- Having the ability to effect work execution without spending money of training everyone – the procedure becomes training document.
- Knowing how you can change a procedure which provides a different outcome.
- Work effectiveness is measurable

Required sections in any effective work procedure

- Step by Step Procedures
- Specifications / Standards
- Required Parts / Potential Parts
- Consumables
- Explicit warnings and cautions
- Notes for clarification
- Special Tools
- Special Equipment
- Craft and Number of Each Craft
- Special Permits
- Coordination requirements

What is the problem? Human Performance - Factors that affect Human Performance:

1. Age
2. Circadian Rhythms
3. State of Mind
4. Physical Health
5. Attitude
6. Emotions
7. Propensity for Common Mistakes
8. Errors
9. Cognitive Biases

“We have learned to live in a world of mistakes and defective products as if they were necessary to life”

– Dr. W. Edward Deming

Next Steps:

1. Ensure you have effective PM/PdM and Corrective Work Procedures
2. Write or modify procedures so they meet the standard above.
3. Measure performance of these procedures.