

Operator Care – 4 Elements to Enhanced Operator Inspections

“TOOL BOX TRAINING”

By Mike Gehloff, GPAllied mgehloff@gpallied.com



Operator Care is a simple process that engages all of the personnel working within the organization towards a common goal of increased throughput and decreased equipment delays.

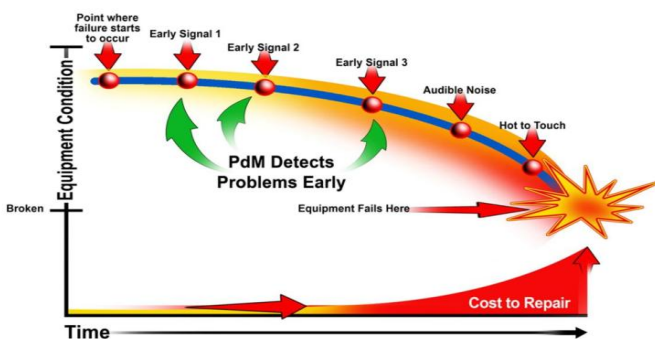
It is simple in that it engages all of the ears, eyes, and noses in the early identification of equipment abnormalities (rather than the subsequent failures) and provides a simple means to report and track the repairs to be performed.

Elements to Improve Operator Inspections:

ELEMENT 1 – Focus on Abnormalities, not Failures:

Point “P” (the onset of failure) differs greatly from point “F” (the loss of function) on the P-F curve. Many operators do not understand this relationship and are not conditioned to report equipment abnormalities.

With simple discussion, this important differentiation can be explained. It is important to continually discuss the different ways in which abnormalities present themselves on the equipment under each operator’s care, and to train them in the common failure modes that they must be looking for.



The P-F Curve

ELEMENT 2 – Formal Routine Inspection Forms: Simple, clear, and concise, the Routine Inspection Form defines the expectations of the operators in the area and facilitates standardization of:

- What is to be inspected?
- How Often?
- Who is Responsible?
- What is the Acceptable Range (Quantitative Criteria)?
- Where is it located and what does it Look Like?
- How do I communicate what I have found to others?

In order to be most effective, routine inspection forms must be formally written and contain the elements listed above. Most importantly, the inspections must be developed by a team of operators and maintenance technicians working together, ensuring ownership and accountability.



Team’s Review the Formal Inspection Forms



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ELEMENT 3 – Ensure Inspections are Quantitative:

A quantitative inspection is one that can be performed in a standardized, repeatable, and measurable way by every operator. Quantitative inspections include some numeric criteria whenever possible (pressure, temp., level, etc.), or a detailed description what we would expect to see. Quantitative inspections are often enhanced with pictures or sketches.

Subjective Inspection: “Check Gearbox”

Quantitative Inspection: “Ensure Oil Level ½” - ¾” in Sight Glass”

These quantitative descriptions are built into the routine inspection forms used by the operators. In certain applications it is challenging to describe the desirable (or undesirable) condition. In these situations the use of photographs greatly improves the inspection process.

ONE POINT LESSON
Area: Case Sealer Room

Title: POP UP BELT INSPECTION

GOOD

•It is very important to check the condition of the pop up belts prior to startup.



•If a belt breaks during a production run, then jam ups will occur which will lead to lower production

•If you notice a bad belt, call maintenance or your supervisor and have it replaced right away.

•An example of a good and bad belt is provided to the right.

BAD



A One Point Lesson

ELEMENT 4 – Liberal use of Visual Controls:

Visual controls can be used to:

- Improve the Speed and Accuracy of Inspection
- Reduce Confusion
- Ensure Consistency

Simple applications such as the marking of gauges and level indicators, match marking base bolts, or labeling equipment can greatly enhance inspection performance and engagement.



Teams Applying Visual Controls

Conclusion:

Organizations that fail to engage the operators in their asset care strategies are missing a great opportunity to identify and address abnormalities early in the failure process.

Our experience shows that operators are ready and willing to be part of the total asset care strategy if we:

- Engage Them Directly
- Value their Input
- Work Cooperatively to Define Clear Expectations
- Make it Visual
- Follow Up on Reported Problems in a Timely Manner