



The Pareto of Failures Most Plants Ignore

Most plants already have the data they need to focus their reliability efforts. Years of work orders sit in the CMMS, complete with asset numbers, failure descriptions, and labor hours. Yet the same assets and failure modes keep generating unplanned work while improvement projects spread thin across the entire equipment list. The missing step is simple: turn the history into a Pareto and act only on the vital few.

A Pareto analysis shows that a small percentage of failure modes or assets usually accounts for the majority of reactive work, downtime, or cost. Focusing RCM-style thinking on that top slice produces faster results than trying to optimize everything at once.

Why Most Teams Skip This Step

The data exists, but it stays in lists or raw exports. Without a quick grouping and ranking, planners and reliability people cannot see which problems are worth a deeper look. Monthly reports may show total breakdowns or overall MTTR, yet they rarely highlight the specific assets or failure modes driving those numbers.

How to Run a Quick Pareto from Your CMMS

You can produce a useful Pareto in under an hour with standard work-order history.

- Export reactive work orders for the last 6–12 months. Include asset ID, failure code, description, and labor hours.
- Clean the list just enough to group similar items.
- Summarize by asset or by failure mode. Count work orders, labor hours, or downtime.
- Sort descending and calculate the cumulative percentage. The top items that reach roughly 70–80 percent are your vital few.
- Limit the result to a one-page list of the top 10–15.

Turn the Top 20 Percent into a Prioritized Action List

Once you have the Pareto, apply basic consequence thinking only to those items. For each, decide the next action: review whether the current PM is adequate, examine task content if repeats continue, consider run-to-failure for low consequence, or schedule a short root-cause review.

Assign one owner and a target date to each action. Review progress in the regular weekly meeting. Because the list is short, follow-through is realistic. After 60–90 days, rerun the Pareto.

Common Pitfalls to Avoid

Do not wait for perfect data. Even partially coded history usually reveals the biggest repeat offenders. Avoid analyzing every asset before acting on the obvious top tier. And do not treat the Pareto as a one-time report—rerun it periodically.

Plants that regularly convert CMMS history into a Pareto and then limit RCM effort to the top slice stop spreading improvement work evenly. They concentrate attention where it changes the reactive workload fastest.

When was the last time you ranked your reactive work orders and acted only on the top 20 percent?