MAI CMMS
Reliability Insights Series

How to Build a Practical Failure Mode Library Inside Your CMMS

Most reliability discussions start from scratch. A failure occurs, someone asks what usually goes wrong with that asset, and the group reconstructs the answer from memory or old work orders. The same failure modes get re-analyzed months later because nothing was captured in a reusable form.

A practical failure mode library inside the CMMS stops the cycle. It is a short, asset-specific list of the ways each critical item actually fails, with the cause, the effect, and the current strategy linked directly to the asset record.

Start with the Assets That Justify the Effort

Do not try to document every asset. Begin with the equipment that generates the most unplanned work or carries high consequence. Pull the top 10–20 assets from recent reactive history. Limit each to five to ten failure modes.

Capture Four Pieces of Information per Failure Mode

Keep each entry short: Failure mode, Likely cause, Effect, and Current strategy. Store this on the asset record in the CMMS so it stays attached to the equipment.

Build the First Version from Existing History

Export reactive work orders for the selected assets. Group similar descriptions or codes. The clusters become the initial modes. Have one experienced technician review and correct the draft.

Keep the Library Alive

When a reactive job is closed on a covered asset, check whether it matches an existing mode and update if needed. Glance at rising repeat-failure assets in the weekly review. Once a quarter, verify that listed strategies still match scheduled work.

Which five assets in your plant would benefit most from a short, current failure mode list?