

Repeat Failure Watch List

Every asset that has failed the same way three or more times in the last twelve months belongs on this list. The list gets rebuilt every quarter. The top ten go into the monthly RCA cadence.

Companion to: *Fix the System*, Chapter 16. **Who uses it:** the reliability engineer, maintenance planner, and maintenance supervisor. **When:** days 1-14 of the playbook install. Rebuilt every quarter thereafter from fresh 12-month data. **Why this exists:** a plant with no watch list cannot prioritize RCA work. It runs investigations on whatever the loudest failure of the week was, which concentrates effort on the noisy problems instead of the consequential ones. The watch list forces a quarterly ranking by consequence x frequency so the RCA cadence hits the assets that actually cost the most.

Step 1 — Pull the 12-month history three ways

From the CMMS, pull the last twelve months of work orders. Build three candidate lists.

List A — Raw history count

Group all WOs by asset tag and by failure code (or failure code family if your taxonomy is granular). Count the WOs per asset per code. Any combination with 3 or more WOs in 12 months is a candidate.

List B — Close-out flags

If Chapter 9's close-out discipline is running, your WO close-outs carry a "recurrence" checkbox. Pull every WO where the box is checked, regardless of count. These are cases where the technician doing the work explicitly flagged "we have seen this before."

List C — Interval threshold

For each asset class, the expected interval between failures comes from (a) manufacturer data, (b) sister assets' historical performance, or (c) an SMRP or industry benchmark. Flag any asset whose actual interval is **less than 50 percent** of the expected. This catches assets that have failed only twice but much sooner than they should have.

Combine and deduplicate

Merge the three lists. Deduplicate by asset tag + failure code. The resulting combined list is your raw watch list. A typical 150-asset plant will produce 20 to 60 candidates.

Combined watch-list count: _____

Step 2 — Populate the watch-list table

Fill one row per asset + failure-code combination. Sort initially by raw count descending (rework order in Step 3 after scoring).

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#	Asset tag	Asset de- scription	Failure code	WOs / 12 mo	Source (A / B / C / com- bined)	Last failure date	Months since last
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

(Extend the table as needed for your full list.)

Step 3 — Score each asset by consequence x frequency

For every asset on the watch list, assign two scores on a 1-to-5 scale:

Frequency score

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WOs in 12 months	Score
3	1
4	2
5	3
6-8	4
9+	5

Consequence score

Impact if the asset fails once	Score
Nuisance — duplicate capacity available, no production impact	1
Affects one production line for under 2 hours	2
Affects one production line for 2-8 hours	3
Affects one production line for 8+ hours OR multiple lines briefly	4
Plant-wide shutdown, safety event, regulatory reportable, or major customer impact	5

Priority score

Priority = Frequency x Consequence (ranges from 1 to 25).

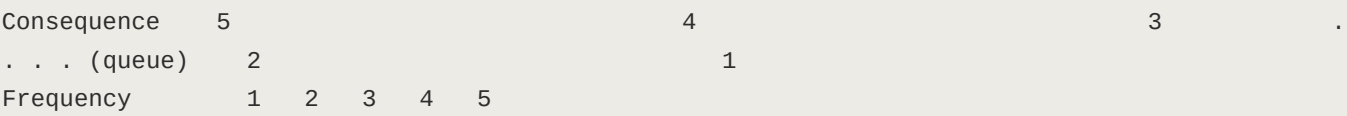
Add two columns to the table:

#	Asset tag	Frequency	Consequence	Priority score	RCA queue rank
1					
2					
3					
...					

Sort by Priority score descending. The top 8-12 entries become the RCA queue for the next quarter.

Step 4 — Plot the priority matrix

Use the matrix template below (or reference Figure 16.1). Plot every watch-list asset as a dot on the 5x5 grid. X axis = frequency score. Y axis = consequence score. The top-right quadrant ($F \geq 3$, $C \geq 3$) is the RCA queue.



Assets in the top-right quadrant AND with Priority score >= 9 go into the queue.

Step 5 — Define the RCA queue

The top 8-12 assets from Step 4 populate the monthly RCA cadence. Three per month is the install rate.

Month	Week	Asset tag	Failure code	RCA owner	RCA tool (5 Whys / Fish- bone / FMEA)	Session date	Attendees
1	W1						
1	W2						
1	W3						
2	W1						
2	W2						
2	W3						
3	W1						
3	W2						
3	W3						

Queue sign-off:

Role	Name	Signature	Date
Reliability engineer			
Maintenance supervisor			
Planner (lead)			
Plant manager			

Step 6 — The off-queue watch list

Every asset that did not make the top 8-12 stays on the watch list. Do not remove it. Do not lose it. The next quarterly rebuild pulls a fresh 12-month history against this list plus any new candidates.

Off-queue count this quarter: _____ **Aged-off count (assets removed because they stopped failing for 12+ months):** _____ **New additions this quarter:** _____

What to avoid

- **Prioritizing by frequency alone.** The matrix exists because high-frequency low-consequence assets can crowd out low-frequency high-consequence ones. Run the matrix.
 - **Running more than three RCAs per month.** Four is stretch. Five burns out the reliability group and the program collapses by month four. If the watch list says you need more, run them over more quarters, not more concurrent sessions.
 - **Aging off assets too fast.** An asset that did not fail this month might simply be between cycles. Require 12 months with zero same-code failures before removing.
 - **Skipping the three-way build (Step 1).** Any single method misses cases. The combined list is 30-50 percent larger than the raw-count list and the extra entries are usually the interesting ones.
 - **Leaving the queue sign-off blank.** The plant manager's signature on the queue is what keeps the RCA sessions on the calendar when a production crisis hits. Without the signature, the first crisis eats the cadence.
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End of worksheet. File with the quarterly reliability review packet. Rebuild from fresh 12-month data every 90 days.