ARTICLE

How to Quickly Turn Around an Underperforming Manufacturing Plant

By David Pate and David Hicks

Key Takeaways:

- A manufacturing plant occasionally becomes a case study for Murphy's law. Anything that can go wrong, does go wrong. As a result, it ends up missing the monthly production and financial targets by a wide margin. With each passing month the plant falls further and further behind.
- This TBM management briefing describes the four-phase crisis recovery process that we've developed over the years that can quickly get a manufacturing operation's performance back to where it should be.
- The turnaround starts with a review and evaluation of the current metrics and performance assessment. Phase two focuses on stopping the bleeding, supporting critical customers and introducing a daily management system.
- The majority of the time is then spent on establishing new processes, systems and governance procedures. Finally, appropriate management behaviours are reinforced to ensure the new performance levels are sustained.

Even well-run companies occasionally have a manufacturing plant that jumps off the rails. Here is our four-step approach to getting them back on track.

A manufacturing plant can sometimes become a case study for Murphy's law. Anything that can go wrong does go wrong, repeatedly. For one reason or another they just can't move the needle. As a result, the plant ends up missing its monthly production targets by a wide margin, exceeding the budget by hundreds of thousands of dollars. With each passing month it falls further and further behind. It doesn't matter how big a company is, such losses cannot be sustained for long.

To stop the financial bleeding company leaders must recognise that the situation isn't likely to be fixed anytime soon with the existing corrective action plans. Turning around chronic poor performers requires extra management attention and resources.

"We look at where a plant is now compared to past performance levels," says Kevin Meyer, director of operations for Pactiv, one of the world's largest manufacturers and distributors of food packaging products. "We give current plant managers the opportunity to make forward progress. Even if they do, but aren't moving fast enough, then it may be time to bring in some extra help."

The Four Phase Recovery Process

This TBM management briefing describes the four-phase crisis recovery process (See Figure 1), that we've developed over the years that can quickly (within three to four months in some circumstances) get a manufacturing plant's performance levels back up to where they should be.

FIGURE 1

TBM Four-Phase Plant Crisis Recovery Process

Evaluation (10%)

- Review current financial and operational metrics
- Perform on-site diagnostic
- Identify and define primary loss drivers
- List obstacles to performance improvement
- Evaluate effectiveness of current recovery plan
- Develop new recovery plan
- Determine resource requirements
- Agree upon KPIs
- Communicate the plan and expectations to managers and employees

Stabiliation (25%)

- Begin to execute the recovery plan starting with areas with high immediate impact
- Evaluate current staff and teams (support, realign or replace?)
- Support critical customers
- Introduce a daily management system
- Establish standard operating procedures and standard work
- Launch project governance protocols

Recovery & Improvement (50%)

- Continue to execute recovery plan
- Institutionalise new processes and systems
  - Asset performance
  - Right-size staffing
  - Supply chain and scheduling processes
  - Quality and scrap control
- Expand the management system and introduce leader standard work
- Sustain project governance activities

Sustainment (15%)

- Reinforce appropriate management behaviours
- Develop and mentor process leaders to drive daily performance
- Ensure documentation is current and complete
  - Process standard work
  - Leader standard work
- Solidify audit and governance processes to provide early warnings of performance slippage.

This is a rough estimate of the time allocated for each phase of the plant crisis recovery process. The duration of each phase and the total recovery time varies depending on the complexity and scope of issues.

PHASE 1

Evaluation and Preparation: Assess the Situation

The objectives of the plant crisis recovery process are straightforward:

1. **Identify the causes of the failures**
2. **Stabilise the situation**
3. **Implement lasting countermeasures**
4. **Establish the work practises and management behaviours that will sustain the new performance levels**

How well the initial assessment and planning are performed has a huge impact on how quickly performance gaps can be closed.

When we're called into a plant that's losing thousands of dollars a day, we follow a diagnostic process designed to drill down to the root causes. Using value stream maps, business process mapping, capacity analysis and other methods, the diagnostic team will analyse current asset performance and downtime, as well as labour utilisation and productivity. They will determine if problems are process and management-related, whether they're caused by mechanical issues, or if they're driven by external factors outside of plant management's control.

> "One of the big issues we've seen at underperforming plants is turnover in skilled positions," says Meyer. "On off shifts especially, where you have people with less experience and newer supervisors, we'll see productivity levels not being maintained. The key in any plant is having a core group of supervisors who can drive improvements and coach their teams. Without those leaders providing direction and stability, the operation will struggle."

If asset productivity is the main problem, for example, the assessment team will look at work schedules, changeover frequencies and changeover times. They will analyse machine condition, speeds, downtime (minor and major stops), and maintenance effectiveness. Once they've identified potential action plans, they will determine if the plant leadership team is capable of supporting the anticipated changes and new work procedures.

The assessment team should include people with the necessary expertise—supply chain management, for example—so appropriate targets and a sound work plan can be created. To implement changes quickly and effectively it's important to maintain some continuity between the diagnostic and execution teams.

Quickly closing the performance gaps requires a recovery plan that clearly states the objectives, priorities, opportunity, solutions, ownership, sequence of events and financial impact. Company executives, site managers and consultants need to agree on the problem statement, root causes, objectives and countermeasures. The recovery plan will identify the expertise required so the right recovery team members can be scheduled and assigned (See Select the Right Recovery Team).

During the evaluation phase, key project KPIs and "measures of success" are established. Typical operational KPIs include operating equipment efficiency, labour cost per hour, and output per hour. The success measures have to be agreed upon so everyone knows when progress is being made.

The diagnostic process will often uncover some issues that have to be addressed before any recovery work can begin. For example, we frequently find that clients need to make investments in equipment maintenance to achieve a baseline level of uptime before we can begin our work. Equipment that isn't capable will negate any process or workflow changes. Vacant management positions should also be filled. Otherwise, there's no one to transfer knowledge to or sustain the changes.

Select the Right Recovery Team

Manufacturers are running very lean these days, with barely enough direct labour and management resources to meet daily orders. This leaves little available time for anyone to work on and fix any chronic issues that are undermining performance.

Quickly turning around a struggling operation requires people. There's no getting around that fact. Internal managers with the change leadership experience and technical capabilities are often already over-committed to other projects. That's why trying to turn around a poorly performing plant with existing internal resources will take much longer and accomplish less. By providing the necessary expertise for an appropriate time, external support can do more, faster.

Regardless of whether you draw on internal or external resources, you need to build a team with the necessary expertise—engineering, scheduling, production, quality, assembly, maintenance, distribution, and so on—who are also adaptable. On a recent crisis engagement, for example, everyone thought the issue was internal quality control. The deeper problem, we discovered, was incoming materials, which required more supplier-related expertise to address.

In addition to people with technical knowledge, a financial analyst can be indispensable. To ensure a rapid turnaround, a strong project manager is also critical to maintain discipline and enforce deadlines. It's their job to ensure that busy people stay aligned, focused, engaged and on task.

Ideally, recovery team leaders should have experience implementing process changes quickly and under pressure. These leadership capabilities are very different from the slower, culture-change approach to business improvement and operational transformation.

In a rapid-turnaround situation, the immediate goal is to get people to work on the right things every day. Culture change can come later. Of course, when people focus and exhibit the right behaviours, that will eventually change the culture.

PHASE 2

Stabilisation: Stop the Bleeding

As part of their mandate, the diagnostic team quantifies the improvement opportunities. They prioritise potential projects based on difficulty, time required to implement and the anticipated impact on costs and margins. The first directive is to stabilise the current situation and do whatever has to be done to meet customer expectations and fulfil orders.

If there's a customer quality issue, for example, you might have to implement 100% inspection. If stockouts are problem, extra inventory may need to be produced to make sure key customers are taken care of.

"The first thing we did on a recent turnaround situation was a financial assessment to show how much money we were leaving on the table," Meyer recalls. "Our standard costs had crept up by about 25% per pound, which we needed to do something about."

> "To stabilize the operation we went after standard work to make sure everyone was doing things the same way. That included everything from how they setup the line to packaging, then making sure everyone was doing it the right way."

To implement and re-establish such procedures, the recovery team will start working with current managers. If a plant or department manager is a major part of the problem, and is not contributing to the turnaround, the recovery team may make recommendations for top-grading critical roles. Leadership then has to take immediate action to replace or move people to different roles. In most instances, personnel changes will add time to the execution timeline.

Key employees who have been working hard to fix the situation must be retained, and their efforts recognised. Despite the mandate to make rapid changes with minimal consensus building, the turnaround experience presents a unique employee development opportunity. Frustration with the current state, implementing the process changes, and seeing the performance impact can have a positive and lasting impact on everyone involved.

It's natural for plant managers to feel threatened having a group of strangers in their facility changing how work gets done. To kickoff a recent engagement we met with the current plant manager to make sure he understood the performance gap and proposed turnaround plans. We then had a similar meeting with his staff. That laid the groundwork for cooperation implementing the planned changes. Over time people felt less threatened as they came to realise that we were there to be helpful and fix the situation.

PHASE 3

Recovery and Improvement: Continue to Execute the Plan

The recovery phase is when the root causes of the plant's performance problems are addressed. Many manufacturers habitually respond to problems on a reactionary basis.

After they've contained an issue, when customers or the corporate office have stopped screaming at them, no one takes the next steps to prevent future issues. This is one reason why manufacturing plants eventually end up in a full-blown crisis.

This phase (See Figure 2) is where the recovery team spends most of its time on the plant floor, modelling the appropriate management behaviours and reinforcing governance procedures. It's like half time in a football game. The recovery team has implemented the initial stabilisation plans, now they can see what's working and what's not, then make adjustments.

The operational and financial KPIs agreed upon in advance are tracked and trended. Ongoing, real-time reporting of the key metrics is essential for monitoring improvement. The recovery team should review progress with plant and company leaders at least every week. Maintaining this governance process is critical. The performance turnaround will slow down if these meetings are postponed or if company leaders fail to attend. This is when issues outside of the plant's direct control can be addressed, such as vendor issues. Potential solutions to longer-term challenges, like labour shortages, can also be discussed.

In the initial stabilisation phase of a crisis situation employee engagement, education and development are not the primary objectives. Although your people will certainly learn from the experience. The emphasis is on fixing the plant's primary pain points.

Later, it is important to give employees a deeper understanding of why changes were made. Deliberate auditing and coaching will help to maintain the new performance levels. People must learn and follow the new work procedures and daily management practises. (For details on how this works, see our management system briefing, "Driving Your Lean Management System to Maximise Value".) At this stage of the recovery process any open positions should be filled so that the new managers can be onboarded and trained in the new practises.

FIGURE 2

Turnaround Activities And Outcomes

Area of Focus	Activities	Outcomes / Deliverables
Improvement Key Drivers	**Activities will be actioned by key driver** • Asset Performance (OEE) • Scheduling • Maintenance • Labour Productivity • KPIs established to track performance	**Measurable improvement in performance tied to plant financials** • Short term/medium term actions • Identification of long term systemic actions • Training/Staffing gaps
Management System	**Daily Performance Management** • Tiered accountability reviews - point of impact to plant level • Corrective actions generated, tracked, closed • Development and refinement of leader standard work • Coaching / modelling behaviours with key leaders	**Rigorous Management System for effectively sustaining gains** • Tiered accountability process • Daily review process • Leader Standard Work
Governance	**Weekly Governance of Project** • Daily review of Plan for the Week • Progress against targets • Action Item management • Critical decisions • Sr. Management/ Sponsor Review	**Clear line of sight to project progress** • Running Action Item List (RAIL) • Feedback on Leadership Team/ Capabilities • Clear and frequent communication of status –issues – risk

Improvement efforts are supported by the introduction of a daily management system and governance processes to deliver the targeted outcomes.

PHASE 4

Sustainment: Document New Work Procedures and Embed Process Discipline

At this stage of the recovery process the governance process and management system should be fully implemented and functioning. The recovery team (which has shrunk in size) continues to support and model the appropriate management practises and behaviour while reinforcing accountability. Any failure to sustain new performance levels should immediately raise a red flag that triggers an appropriate management response.

Leader standard work and other practises that were introduced in the previous phase are reinforced. It takes time for both the managers and supervisors to maintain and get used to new management practises.

Key elements of the new management system may include: daily board walks, leader standard work, kata coaching, Gemba walks, layered audits, and abnormality management. Managers and supervisors should be developing associates' problem-solving capabilities and be pushing down responsibilities.

Regular audits and coaching ensure discipline and consistency. Formal assessments may be used to rate each manager and business area based on the degree to which they are using and developing the desired practises.

What Doesn't Kill You Makes You Stronger

When initiating a plant crisis turnaround, company executives should understand how intense the process can be. It will be extremely stressful for site managers. In some instances, it is akin to condensing a two-year lean manufacturing transformation into a much shorter time span.

As always, direct leadership support is essential to a successful turnaround. Site managers must be available and willing to support the turnaround project as needed. The plant managers need to have the same priorities as the corporate leaders. To meet a condensed implementation timeframe, there will be little time for philosophical or methodology debates.

At the same time, in today's tight labour market, organisations can't afford to lose good people. Retaining plant management can be a key priority in a crisis. Talented people sometimes find themselves in the middle of a bad situation that is not their fault. They're probably frustrated and looking for other employment options. Getting in front of the crisis, fixing the situation, and developing processes to prevent the situation from developing again in the future, can prevent management turnover.

Successfully executing a fast and effective turnaround requires an experienced and comparatively large crisis team (five to ten people), which is not inexpensive. During the initial assessment, business leaders have to weigh such costs against the negative financial impact of continuing to do nothing, or moving too slowly with internal resources to improve performance to an acceptable level and stop the financial losses anytime soon.

In the final analysis, turning around a struggling plant is like heart surgery. When financial viability and plant survival is at stake, drastic actions are required but the pain is worth the benefits.

Danger Ahead! Warning Signs That A Plant Is In Trouble

When we refer to a plant in crisis, we're not talking about the countless issues that can rise up and disrupt daily production plans. A plant in crisis underperforms for an extended period of time—especially in comparison to similar operations or previous performance levels—and shows few signs that things are going to improve. If a plant has missed plan three months in a row, and nothing significant has been done to fix whatever is going on, it's unlikely to do any better in month four.

There are some other warning signs that help differentiate between a one-time performance blip and deeper problems. These include: high turnover (especially in the plant manager and in other senior operations positions), long-term vacancies in key positions (maintenance roles are often vacant for too long), constantly missing deliveries, or ongoing struggles with equipment and meeting production targets.

When the primary issues are process- and management-related, the four-phase recovery process described in this briefing can quickly achieve meaningful results once you've completed a comprehensive situational assessment and have leadership commitment and support for the go-forward plan. If the root causes are driven by issues outside the normal span of control the recovery process can take longer. For example, if maintenance has been neglected and equipment needs to be completely refurbished, or if key leadership positions need to be filled, you should expect a longer timeframe to begin seeing results.

Every sizeable manufacturing company has one or two plants that aren't performing as well as the others. This recovery process can be used to turnaround the worst performing plants in your network. It can be applied in any situation that requires fast and significant management and process changes, not only in dire financial situations. One client example was when order volumes jumped unexpectedly and there wasn't sufficient flexibility and responsiveness built into their production processes.

CASE STUDY

Plant Crisis Recovery in A High-Volume Plastics Plant

Crisis

High-volume consumer product operation with a $300,000 monthly earnings variance to plan caused by negative operating variances for pounds produced/day, material usage and labour costs.

Approach

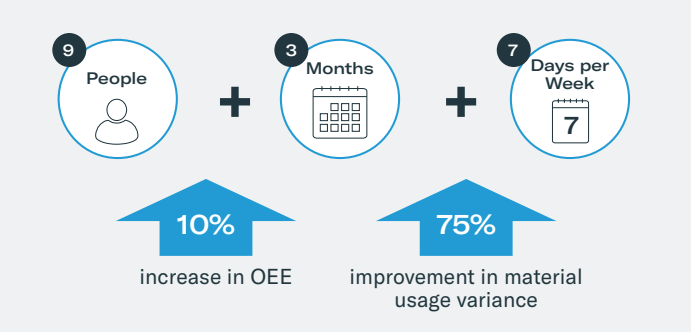
A nine-person plant crisis recovery team worked for three months, seven days/week to execute a four-step improvement plan to improve delivery and drive sustainment.

1. Evaluation – This phase started with pre-work data collection and analysis. We reviewed key operating metrics against current targets and compared them to similar plants. The on-site review identified gaps and quantified opportunities for improvement. We then created a stabilization plan, including equipment needs, key activities, and current obstacles. The phase concluded with a consensus project plan, governance agreement and key metrics.

2. Stabilization – We executed the remediation plan with focused attention on critical actions to mitigate customer issues, introduced daily management and frequent senior management reviews.

3. Recovery – We established permanent corrective actions and built robust processes to prevent future problems. We also deepened knowledge and practice of the daily management system, improved asset performance, worked on supply chain planning issues, executed several quality improvement projects, and moved staff around. We briefed top leadership on current progress and obstacles every week.

4. Sustainment – We created documentation for the new and redesigned processes, including leader standard work, operations standard work, preventive maintenance actions and cadences, and ongoing governance and audit processes.



Results

Plant performance has improved significantly and it is no longer on the corporate “watch list.” Overall Equipment Effectiveness (OEE) improved by 10%, and the material usage variance improved by 75%. Solid plant leadership is in place and recognizes that further progress can be made to get back to previous performance levels.

Meet the Experts

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Speed wins every time.

TBM specialises in operations and supply chain consulting for manufacturers and distributors. We accelerate operational performance to make you more agile and help you accelerate business performance 3–5x faster than your peers.

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