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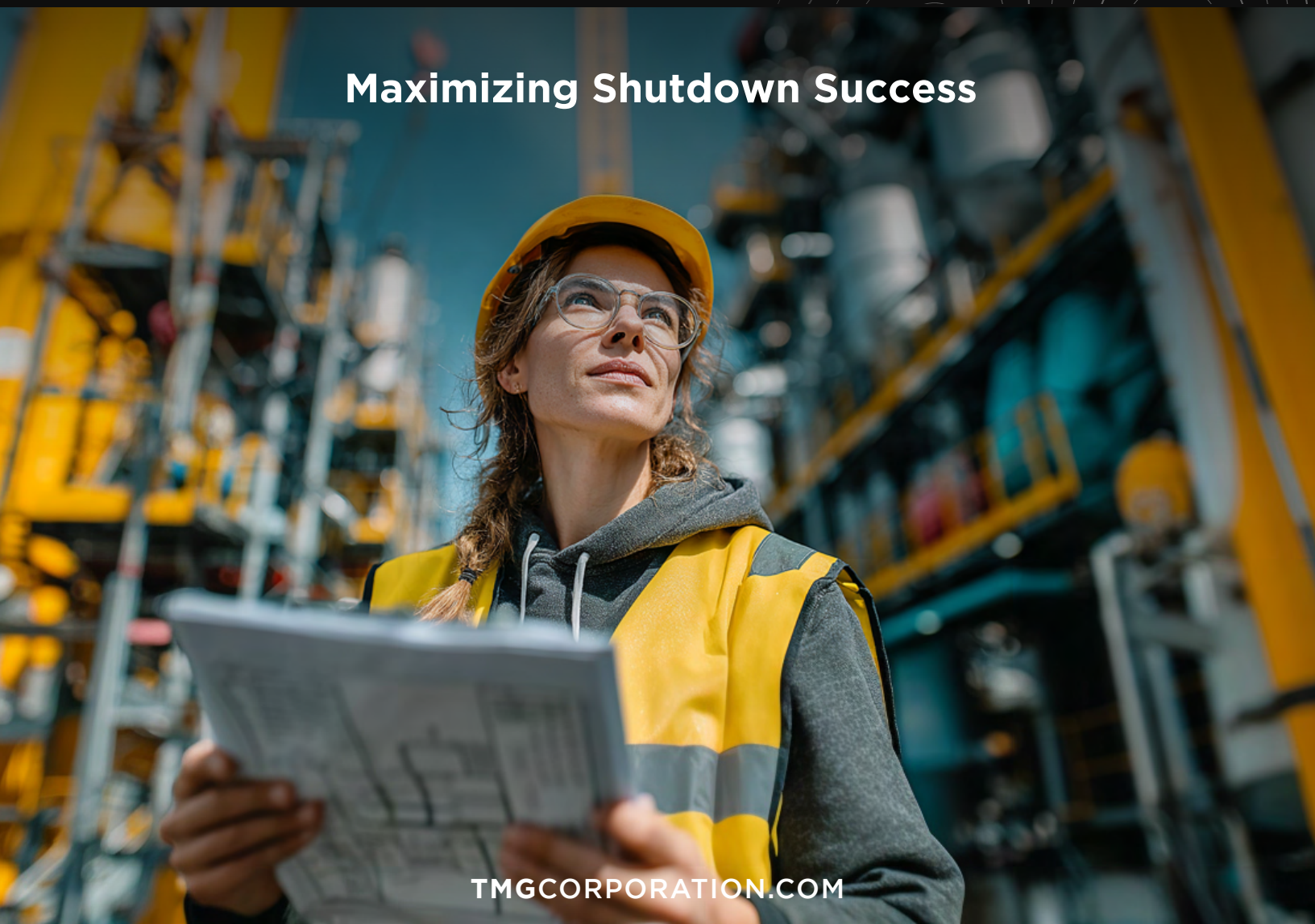
BUSINESS GUIDE

Maximizing Shutdown Success



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Strategic Execution for Turnaround Projects

Shutdowns and turnarounds are among the most complex and high-stakes events in mining and industrial infrastructure operations. These planned interruptions are intended to restore operational integrity, replace or upgrade major systems, and ensure compliance with safety and environmental regulations. However, while the intent is strategic, the outcomes are often disappointing. Projects run over budget, exceed schedules, and suffer from coordination breakdowns that erode operational performance long after the shutdown ends.

According to a study by Independent Project Analysis (IPA), over 50% of significant shutdowns in the mining sector exceed their planned duration by at least 15%, with cost overruns commonly reaching 25–30%. In worst-case scenarios, poorly executed shutdowns can result in catastrophic equipment failure, loss of the license to operate, or even fatalities. Yet these failures are rarely caused by bad intentions—they're the result of systemic planning gaps, fractured execution accountability, and the misalignment between owner expectations and contractor deliverables.

To ensure turnaround success, owner organizations must adopt a structured, integrated, and proactive approach to management. This means treating shutdowns not as one-off maintenance events, but as capital projects in their own right—complete with strategic planning, risk analysis, and governance that primary investments demand.

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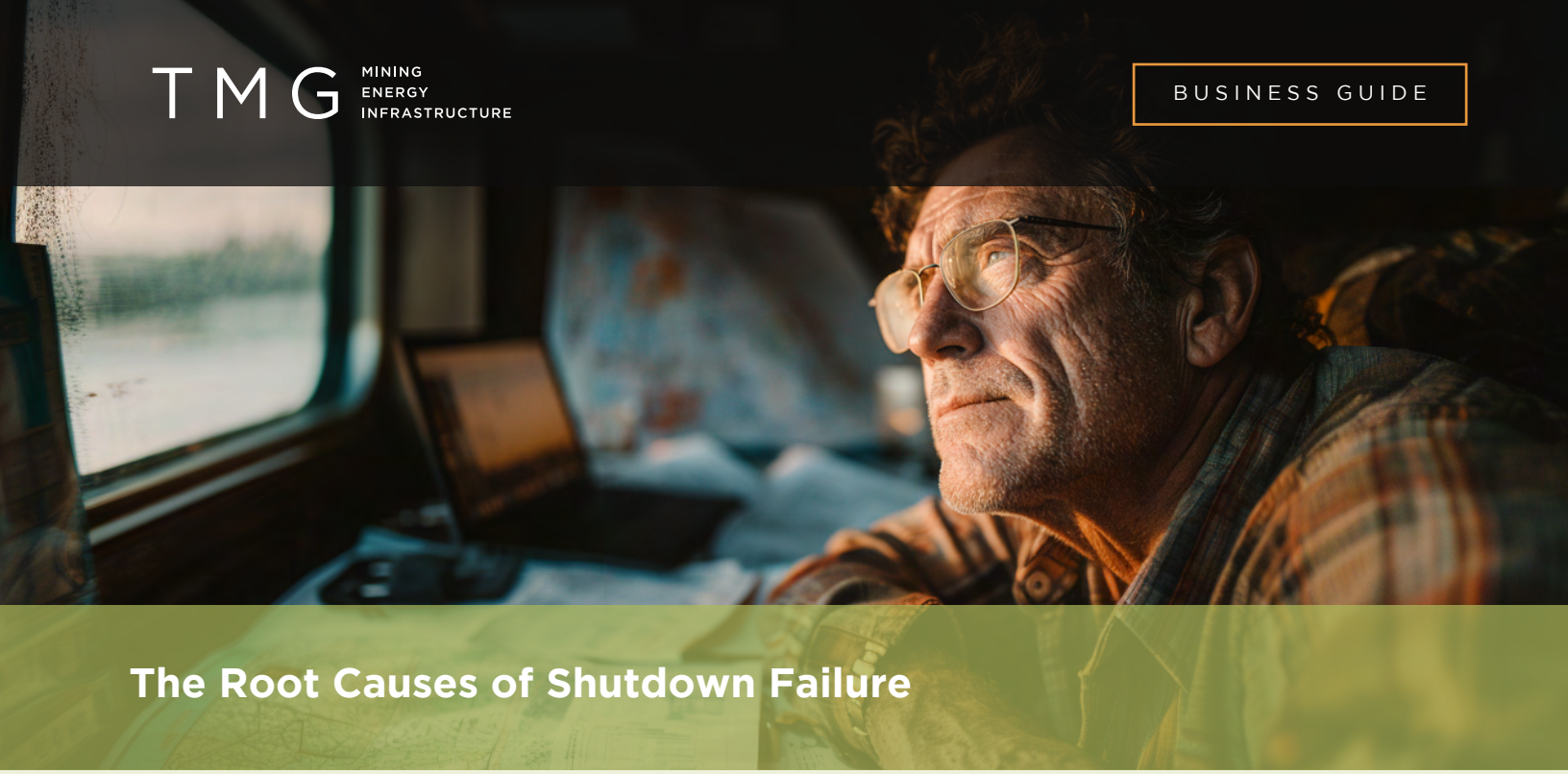


The Root Causes of Shutdown Failure

Shutdowns fail when they are treated as operational interruptions rather than capital project events. Too often, companies rely on legacy playbooks, institutional memory, or internal teams that lack the bandwidth or expertise to manage increasingly complex scopes. With shrinking maintenance windows and aging infrastructure, even routine tasks are layered with technical risk. The consequences of underestimating the scope or timeline can cascade into production losses, supply chain disruptions, and safety violations.

One of the primary root causes is poor scope definition. Scope creep—the progressive and unplanned expansion of work—is responsible for the majority of budget overruns in turnaround projects. In one benchmarking survey, 65% of maintenance and turnaround professionals identified uncontrolled scope growth as their top project risk. It often begins with small, seemingly harmless additions, but these unplanned inclusions divert resources, stretch teams thin, and strain logistics.

Another significant issue is scheduling misalignment. While most shutdowns operate on rigid, non-negotiable timeframes due to downstream dependencies, the work packages that feed into the master schedule are frequently based on optimistic assumptions. These assumptions ignore contractor availability, procurement lead times, or system interdependencies. As a result, shutdown schedules look solid on paper but are brittle in execution.

Finally, contractor coordination remains a persistent vulnerability. In many significant turnarounds, multiple subcontractors are mobilized simultaneously, often for the first time at a given site. Without detailed onboarding, clear roles and responsibilities, and centralized command structures, productivity dips quickly. Productivity losses of 30–40% are common in the first week of shutdowns that lack coordinated kickoff protocols or real-time field supervision.

Building a High-Performance Shutdown Strategy

To combat these challenges, owners must begin with the right mindset: shutdowns are strategic opportunities, not operational nuisances. A high-performance shutdown strategy must begin months, if not years, before the first wrench turns. It requires a multi-disciplinary, integrated project team that can manage competing priorities, coordinate with operations, and bring discipline to scope, schedule, and spend.

Scoping is the foundation. All successful shutdowns begin with precise, quantified scopes of work. This includes identifying mandatory tasks (regulatory, safety-critical, or failure-risk components) and separating them from discretionary or 'wish list' items. At least 70% of the total scope should be frozen at the preliminary planning stage to enable downstream schedule integration and contractor bidding. A zero-based scoping approach—where all scope items must be justified rather than assumed—helps eliminate legacy bias and limits unnecessary additions.

The next critical step is schedule realism. Integrated planning tools must be used to map out dependencies, simulate resource availability, and model essential path sequences. Many shutdowns are planned in isolation from day-to-day operations or external suppliers. This creates a misalignment between what is theoretically possible and what is practically achievable. A well-developed schedule must reflect actual contractor mobilization times, real-world equipment availability, and the interdependencies between trades. Leading shutdowns also include soft-start and ramp-down phases to manage workforce loadings and address minor scope corrections without jeopardizing the entire timeline.

Contingency planning is equally important. A recent study by the Construction Industry Institute found that only 23% of organizations included full contingency simulations in their turnaround planning. Yet shutdowns exist in high-risk, high-pressure environments where even minor disruptions, such as late valve deliveries or weather delays, can cascade into systemic failures. Owners must create detailed contingency protocols, including resource allocation plans, on-site spares, and alternative execution paths. These are not luxuries—they are the only way to absorb schedule shocks without triggering massive cost escalations.

Procurement is another area where shutdown success is either cemented or compromised. Shutdowns demand just-in-time delivery of complex materials and components. A delay in one part—whether it's a gasket, pump, or specialized tool—can shut down multiple work streams. Best-in-class organizations lock in procurement schedules at least six months in advance and maintain visibility across all vendor lead times. They also develop secondary supplier relationships in anticipation of global supply chain fluctuations. In 2023, nearly 60% of major shutdown projects across North America cited material delays as a primary risk, despite having otherwise complete work plans.

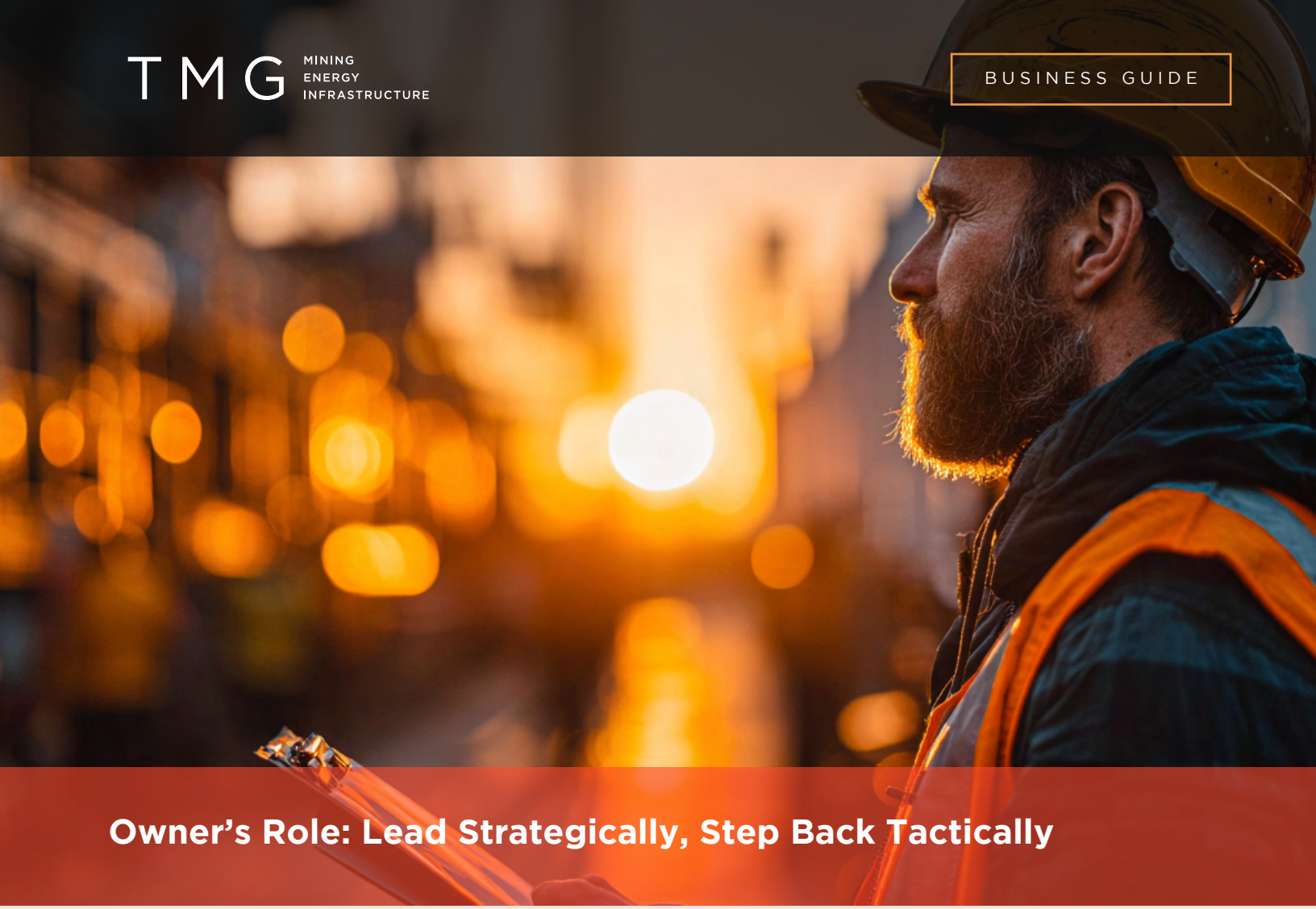
Contractor & Workforce Integration

The human element of shutdowns can't be overstated. It's common for 60–70% of the shutdown workforce to be made up of temporary or contract labor. This influx of personnel must be onboarded, trained, and managed in a high-risk environment under compressed timelines. Owners who fail to plan for workforce onboarding and supervision pay the price in safety incidents, quality failures, and low productivity.

Effective shutdown teams employ tiered management structures with transparent chains of command. This includes area supervisors, field coordinators, and integration leads who act as bridges between contractors and the owner team. Each role should be clearly defined and mapped to a reporting protocol that feeds real-time updates to the central command room.

In the best examples, daily stand-up meetings are used to review progress, identify issues, and dynamically reallocate resources. Mobile-enabled reporting systems and digital field data capture further enhance visibility and transparency. Yet despite these tools, culture remains the key differentiator. Shutdowns succeed when all parties operate under a shared objective with mutual accountability and professional respect.

Safety, of course, remains the ultimate performance metric. A rushed or disorganized shutdown is particularly hazardous. Historical data from OSHA and Canadian provincial regulators show that incident rates during turnaround periods are up to three times higher than those in baseline operations. This isn't due to inherently riskier tasks—it's due to the combination of compressed timelines, unfamiliar workers, and communication breakdowns. Safety performance must be engineered into the schedule, with mandatory pause points, cross-team briefings, and built-in recovery windows.



Owner's Role: Lead Strategically, Step Back Tactically

One of the most overlooked aspects of shutdown performance is the owner's role. In many cases, owners either overextend themselves by micromanaging execution decisions or underplay their role, assuming that project delivery is the contractor's responsibility.

The truth lies in balance. Owners must lead strategically by setting clear expectations, defining critical success factors, and holding teams accountable to key performance indicators (KPIs). They must also step back tactically, trusting experienced shutdown managers and technical leads to execute within a defined framework. When owners strike this balance, projects benefit from clarity, cohesion, and confidence.

Strong owner teams also maintain decision velocity. When issues arise—as they inevitably do—owners must be empowered to make timely decisions without cascading approvals. Empowerment frameworks, delegation protocols, and real-time risk registers are crucial tools that facilitate swift and informed action during high-pressure situations.

Why TMG?

Shutdowns are complex, expensive, and high-risk undertakings. They test the limits of planning, execution, and leadership. When they go wrong, the costs ripple far beyond the shutdown window, impacting production targets, safety outcomes, and organizational credibility. However, when executed correctly, shutdowns become strategic value creators, extending asset life, enhancing efficiency, and reinforcing investor confidence.

TMG specializes in delivering exactly this kind of high-stakes performance.

We bring a field-tested methodology for managing shutdowns—from early scoping and contractor integration to real-time execution support. Our teams comprise seasoned project managers, technical leads, document controllers, and procurement strategists who are well-versed in navigating industrial complexity. We work alongside your internal teams—not above or around them—to create one cohesive shutdown environment with clear roles, timelines, and accountability structures.

Whether you're planning a routine outage or a once-a-decade capital turnaround, TMG ensures you're set up for success. Our support reduces risk, contains cost, and enhances performance—without adding overhead or disrupting your internal rhythm.

Ready to take control of your next shutdown?

Contact a TMG expert today to explore how our Owner's Team services can help you maximize shutdown success.

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TMG specializes in executive and management consulting for the mining and oil and gas sectors, offering tailored oversight and strategic guidance across all project stages to ensure optimal outcomes from conception to execution.