



NAC Executive Insights

Refining Temporary Works Governance

Key Points

- The goal of Temporary Works Governance is to manage physical risk associated with temporary works.
- The worker is the **solution**, and the system (policies, processes and approach) needs to be redesigned to accommodate human fallibility.
- The goal is to move from bureaucratic compliance to operational resilience.
- Construction Safety Framework is designed to help transition from Safety I, preventing things from going wrong to Safety II, ensuring things go right. Adopt a Safety II mindset, where organizations begin to understand not only why things go wrong, but more importantly, why they go right
- Teams need to study why things go right to replicate success.
- The Construction Safety Maturity Framework is applicable to general construction project safety and not just temporary works.
- This Executive Insight is a companion to the Temporary Works Governance Executive Insight.

Introduction

Given the track record of temporary construction safety performance, is it advisable to consider reinventing the wheel as opposed to just merely reviewing existing policies, procedures and ensuring compliance with the guidance?

It's a provocative question because the construction industry often feels like it's stuck in a cycle of "do more of the same and hope for different results." If we look at the data, the plateau in safety performance suggests that while **compliance** keeps people out of jail, it doesn't always keep them out of the hospital.

This Executive Insight looks at "refining" and perhaps a more practical middle ground.

The Compliance Paradox

The traditional approach in the construction industry is often to double down on existing policies. However, simply "ensuring compliance" often leads to **paperwork safety**—where the goal shifts from managing physical risk to managing the trail of signatures.

Approach	Focus	Strength	Weakness
Review & Comply	Adherence to rules, audits, and checklists.	Predictable, legally defensible, and standardized.	Can lead to "safety silence" and box-ticking fatigue.
Reinventing (Innovation)	Human factors, psychological safety, and tech integration.	Addresses root behaviors and modernizes methods.	High initial cost and cultural resistance.

Why "Reviewing" Isn't Enough

If the track record is stagnant, the policies, process and approach you are reviewing might be fundamentally flawed for the modern site.

- **Static Policies vs. Dynamic Sites:** Temporary works change daily. A policy written years ago rarely accounts for the specific, shifting pressures of today's job site.
- **The "Human Error" Trap:** Traditional policies often view the worker as the problem to be controlled. Modern safety science suggests the worker is the **solution**, and the system (policies, processes and approach) needs to be redesigned to accommodate human fallibility.

The Case for "Refining" Over "Reinventing"

Total reinvention is often a recipe for chaos. Instead of discarding everything, the most effective strategy is often **re-engineering the delivery**:

1. **From Compliance to Capacity:** Instead of asking "Did they follow the rule?" ask "Do we have the capacity to fail safely?" (e.g., if a temporary bracket fails, is there a secondary system?).
2. **Safety II Principles:** Focus on why things go right 99% of the time, rather than only investigating the 1% that go wrong.
3. **Technological Integration:** Use real-time load sensors on temporary structures or AR for installation walkthroughs. This isn't just a "policy review"; it's changing the physical way work is performed.

The Verdict

It is **not advisable** to throw away the rulebook—regulatory frameworks exist for a reason. However, it is **highly advisable** to reinvent the **philosophy** behind how those rules are applied. If your current system is just a stack of permits-to-work that no one reads, you aren't just reviewing a policy; you're managing a liability.

The goal shouldn't be to reinvent the process itself, but to change the engine driving it—moving from **bureaucratic compliance** to **operational resilience**.

Safety Maturity Audit

To move beyond "paperwork safety," a safety maturity audit should be conducted. This audit can be envisioned as being the logical extension of the findings from the Temporary Works Governance Index described in the Executive Insight, Temporary Works Governance.

This audit doesn't just check if a policy exists; it measures how that policy lives on the job site. The framework that follows is designed to help transition from **Safety I** (preventing things from going wrong) to **Safety II** (ensuring things go right).

Construction Safety Maturity Framework

This framework uses a 5-level scale:

1. **Reactive**
2. **Compliant**
3. **Proactive**
4. **Resilient**
5. **Generative.**

Each of these levels are described below.

1. Leadership & Accountability

- **The "Walking the Talk" Metric:** Are executives seen on site engaging in "Safety II" conversations (asking what workers need to succeed) or just "Safety I" audits (finding faults)?
- **Resource Allocation:** Is safety tech (wearables, load sensors) budgeted as an investment or seen as a cost-center?
- **Stop-Work Authority:** When a worker stops a task for safety, is it celebrated as a "save" or scrutinized for the schedule delay?
- **Decision Transparency:** Are operational decisions (schedule compression, design changes, temporary works sequencing) accompanied by a clear explanation of how safety capacity—not just compliance—was considered? If “the system needs to be redesigned to accommodate human fallibility,” it requires leaders to show how decisions protect capacity, not just rules.
- **Leadership Learning Behavior:** After a successful high-risk activity, do leaders participate in “Five Whys of Success” reviews to understand why things went right?

2. Risk Management & Temporary Works

- **Dynamic Risk Assessment:** Move beyond just the morning "toolbox talk" to real-time risk sensing.
 - *Maturity Marker:* Are you using BIM-integrated safety planning or 4D simulations to identify clashes in temporary works before they are built?
- **The "Buffer" Check:** Does the design include a "Margin of Maneuver"? If a prop is displaced or a load is exceeded by 10%, does the system fail catastrophically or hold firm?
- **Real-Time Variance Tracking:** Does the project track deviations between Work-as-Imagined (design intent, TWC plans) and Work-as-Done (actual installation conditions) for temporary works?
- **Temporary Works Adaptability Index:** When site conditions change (weather, access, load paths), how quickly can temporary works designs be reassessed, reapproved, and communicated to crews?

3. Worker Engagement & Psychological Safety

- **Safety Silence:** Conduct anonymous surveys. Do workers feel they can report a "near miss" without being blamed or "retrained" as a punishment?
- **Competency vs. Compliance:** Check if training is based on actual site-specific challenges (e.g., heat stress monitoring, complex rigging) rather than generic video modules or standard industry or corporate training programs.
- **Blue-Collar Innovation:** How many safety improvements in the last 6 months have come from suggestions made by frontline workers?
- **Frontline Influence Score:** How many temporary works or high-risk activity plans were modified based on frontline feedback before execution? Recognizing that workers are "the solution" and that improvements often come from "suggestions made by frontline workers," keep the focus on obtaining meaningful engagement.
- **Near-Miss Learning Quality:** Are near-miss reports analyzed for systemic contributors (e.g., sequencing pressure, access constraints) rather than worker behavior alone? The Safety II observation table contrasts blame-oriented vs. learning-oriented problem solving—"What happened, and how did the system allow it?"

4. Technology & Data Integration (Industry 4.0)

- **Leading vs. Lagging Indicators:**
 - *Low Maturity:* Measuring LTIFR (Lost Time Injury Frequency Rate).
 - *High Maturity:* Measuring "Sensing Accuracy" (how often site sensors correctly predicted a hazardous condition).

- **Digital Twins:** For temporary works (scaffolding, shoring), is there a digital record of the as-built state versus the design?
- **Temporary Works Sensor Coverage:** What percentage of critical temporary works elements (props, shoring towers, formwork, tie-backs) are equipped with load, displacement, or vibration sensors?
- **Data-to-Action Cycle Time:** How long does it take for digital alerts (sensor anomalies, BIM clashes, AR-identified misalignments) to result in a field intervention? Technology must “change the physical way work is performed,” not just generate data.

5. Learning & Continuous Improvement

- **The "After Action" Review:** After a successful, high-risk pour or lift, do you sit down to discuss *why* it went well?
- **Incident Investigation:** Does the investigation stop at "Human Error" (Level 1), or does it dig into "Systemic Pressures" like scheduling conflicts or procurement delays (Level 5)?
- **Success Replication Rate:** After a successful high-risk activity, how many of the identified success factors are captured, standardized, and reused on the next similar task? Use teams to study “why things go right” and replicate those conditions.
- **Systemic Pressure Mapping:** Do incident and near-miss reviews explicitly map?

The Audit Scorecard

Here is a sample of a simplified table to categorize the current state:

Dimension	Level 2: Compliant	Level 4: Resilient
Documentation	Paper-based, updated annually.	Digital-first, updated via real-time site data.
Human Error	Something to be disciplined.	Information about system weaknesses.
Temporary Works	Signed off by a Temporary Works Committee (TWC) ¹ once.	Monitored by sensors and daily inspections.
Success Factor	"Nobody got hurt today."	"We had the capacity to fail safely today."

Why this works

By auditing for **Resilience** rather than just **Compliance**, you identify where your temporary works system is falling short or actually broken. For example, if your audit shows Level 4 in Leadership but Level 1 in Worker Engagement, you know that your system isn't providing the required communication bridge to the frontline.

The appendix provides a starting point for audit interview questions.

¹ The TWC may be a Temporary Works Coordinator on small project sites or a Temporary Works Committee overseeing multiple coordinators across multiple work areas and activities on larger, more complex projects.

Appendix

Typical Temporary Works Governance Safety II Audit Questions

To move into a **Safety II** (Resilience Engineering) mindset, the Temporary Works Governance interviews should shift from "Why did you break the rule?" to "How does the work actually get done?"

These typical questions are designed to uncover the gap between **Work-as-Imagined** (the policy) and **Work-as-Done** (the reality on the ground). Question will be driven by actual project and site requirements, chosen means & methods, and level and mix of workforce capabilities.

These interview questions are categorized by their strategic intent and many are applicable to audit of permanent works activities.

Safety II Interview Guide for Site Supervisors & Leads

1. Identifying "Work-as-Done" (The Reality Gap)

- "In the last week, can you describe a task where you had to 'adjust' the official procedure to get the job done safely and on time?"
- "If a new person started tomorrow, what is the one thing in the safety manual they would find impossible to follow in practice?"
- "What is the most common 'workaround' used on this site, and why is it necessary?"

2. Understanding Success (Why things go right)

- "We had a complex concrete pour yesterday that went perfectly. What were the three things that *almost* went wrong but were caught by the team?"
- "When things are going well on a Tuesday afternoon, what does the 'rhythm' of the site look like? What are people doing differently than on a bad day?"
- "What are the 'unwritten rules' that keep this crew safe during high-risk activities?"

3. Capacity & Resilience (Failing Safely)

- "If [Specific Piece of Equipment/Temporary Work] were to fail right now, what is our 'Plan B' to ensure no one gets hurt?"
- "Where on this site do you feel the 'margin of safety' is the thinnest right now?"
- "What is the one resource (tools, time, or people) that, if it were cut by 10%, would make this job unsafe?"

4. Psychological Safety & Support

- "When was the last time a worker pointed out a risk that you hadn't seen? How did you react, and what changed?"
- "Do you feel the project schedule allows you to say 'No' to a task if the conditions aren't perfect? Give me an example of when you last did that."
- "What is the 'stupidest' safety rule we have that actually makes your job harder or more dangerous?"

Safety II Observation Checklist

Instead of just asking, use this "Audit by Observation" rubric to see if the answers match the actions:

Look For...	Safety I (Traditional)	Safety II (Resilient)
Toolbox Talks	Supervisor reading a script while workers look at phones.	Interactive discussion about the day's specific "hazards of the hour."
Near-Miss Reports	Rare, often focused on "trip hazards" or low-stakes issues.	Frequent, focused on complex system interactions or "close calls" with heavy gear.
Problem Solving	"Who did this?" (Blame-oriented)	"What happened, and how did the system allow it?" (Learning-oriented)

How to Conduct These Interviews

- **The "No-Blame" Amnesty:** Start by explicitly stating that these questions are about fixing the **system**, not the **person**.
- **The "Five Whys" of Success:** Usually, we use the "Five Whys" for accidents. Use them for success: *"Why did that lift go so smoothly? Why was the communication so clear? Why did the rigger feel comfortable stopping the crane?"*
- **Focus on the "Blue Line":** In Safety II, the "Black Line" is the procedure, and the "Blue Line" is what actually happens. Your goal is to understand the Blue Line.

Conclusion

The evidence is clear: traditional compliance-driven approaches, while necessary, are no longer sufficient to manage the complexity and pace of modern temporary works. As the Executive Insight highlights, “temporary works change daily,” and systems built around static rules inevitably fall behind the realities of dynamic sites. The shift toward refining—rather than reinventing—the governance model allows organizations to preserve the regulatory backbone while modernizing the operational philosophy that brings those rules to life. This is the essence of moving from paperwork safety to operational resilience. The Temporary Works Governance Index laid out in the companion Executive Insight provides a measure of leading indicators while the actions of the the Temporary Works Committee, as defined in this Executive Insight, support a refined management system and approach supported by confirming audits.

By adopting a Safety II mindset, organizations begin to understand not only why things go wrong, but more importantly, why they go right. The expanded maturity metrics introduced in this Executive Insight reinforce that shift by focusing on leadership behavior, real-time risk sensing, frontline influence, technology-enabled insight, and systemic learning. These additions strengthen the bridge between Work-as-Imagined and Work-as-Done, ensuring that temporary works governance becomes a living system—responsive, adaptive, and grounded in the realities of the job site. When leaders demonstrate decision transparency, when crews contribute meaningfully to planning, and when technology accelerates learning rather than merely recording data, the organization builds true capacity to fail safely.

Ultimately, refining temporary works governance is not about adding more controls; it is about enhancing the organization’s ability to anticipate, absorb, and adapt to variability. A resilient system is one where success is not defined by the absence of incidents, but by the presence of capacity—capacity in design, in decision-making, in communication, and in the workforce itself. By embracing this refined approach, organizations position themselves to achieve a higher level of safety maturity, one where temporary works are not just compliant, but consistently and predictably safe in practice.

For Further Reading – Other Executive Insights

- Temporary Works Governance

About the Author

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