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Charting the Course to Success

Nuclear Plant Recovery Overview

May 2016

Introduction

Getting nuclear plant recovery right isn't easy.

These are large initiatives that require extensive time, knowledge, skill, and coordination. What's more, a sustainable recovery requires improving not only plant operations but also plant culture and the effectiveness of the personnel.

In this presentation, we answer some of the initial questions you may have as you start to think about your nuclear plant recovery effort:

- How Do We Know There Is a Problem?
- What Goals/Objectives Must We Achieve?
- Can a Philosophy Improve Our Results?
- Is There a Proven Path to Success?
- What Tools Will Help Us?
- What Are the Lessons Learned?
- Who Knows the Path and Can Guide Us?

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How Do We Know There Is a Problem?

A nuclear plant's performance can vary over the life of the asset. Over time, a plant's performance may deteriorate without the reason being abundantly clear to even the people most familiar—those who are immersed in the plant's daily operations.

Our experience suggests that listening for these kinds of leading indicators can help you intervene earlier and be more successful sooner:

- **"Our previous recovery teams and recovery efforts have failed"** – yielding no sustained results for their core mission
- **"We know that KPI says we are underperforming, but this is why"** – explaining away and/or justifying underperformance in relationship to industry peers without deeper analysis as to why
- **"That KPI doesn't accurately measure us, our department is different"** – relaxing or justifying key metric definitions to make things (backlogs, events, corrected actions, etc.) appear better than they are
- **"It is probably because of…"** – not getting to the core underlying issues during Apparent Cause Investigations and Root Cause Investigations – another sign may be repeat events
- **"That's 'good enough' to pass the inspection"** – focusing on temporary solutions instead of creating permanent solutions
- **"I'll let it slide this time, but just make sure you do it next time"** – excusing incomplete actions; accepting rather than challenging
- **"But that is not our priority; our department is focused on…"** – cultivating a siloed organization where site leadership is not aligned with common goals; "one plant, one team" mentality not present

If any of the above statements sound familiar, it is time to take a deeper look.

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What Goals/Objectives Must We Achieve?

Plant recoveries are large efforts, but the two main objectives are very clear:

1. Improve fundamental behaviors and plant operational performance

2. Ensure leadership team communicates a consistent message to all stakeholders on the recovery effort

It is critical to develop a plan that is unified and executable. Recognize that there is a problem and commit to resolving it together.

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Can a Philosophy Improve Our Results?

Yes, a plant recovery philosophy can improve your team's results. However, it is critical that the plant recovery team develops the philosophy in-house, meaning your team must own it. A typical recovery philosophy achieves the following:

- **Commits the station to long-term success** – bakes fleet and industry standards into the plans and implementation
- **Builds alignment on the problem(s) to be fixed** – ensures station personnel (employees and contractors) understand the current performance as well as the desired future state and plan for getting there
- **Celebrates quick wins** – addresses immediate issues to build momentum/stakeholder buy-in
- **Sets the tone/culture upfront** – outlines the expectations for ongoing operation discipline
- **Emphasizes execution** – has bias for action and follow-through
- **Is comprehensive** – "no shortcuts"
- **Ensures clear site ownership and accountability** – actions and results are the station's responsibility to execute with corporate/fleet support to ensure 200% accountability in the solution
- **Engages and aligns corporate, fleet, and site leadership in the recovery plan**
- **Displays excellence** – demonstrates to external (e.g., INPO, NRC) and internal stakeholders that we can find and fix our problems
- **Keeps it simple** – does not mistake activities for performance improvement; highlights the importance of the right work being done at the right time, the first time
- **Focuses on results** – identifies and tracks clear metrics that will demonstrate real change, not just effort or activity

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Is There a Proven Path to Success?

Yes. This three-phase approach has been proven by multiple nuclear operators.

	Phase One *Focus on Performance Basics*	Phase Two *Conduct Functional Area Gap Review*	Phase Three *Track and Monitor Progress*

Focus	▪ Engage corporate resources and sponsorship
	▪ Fix short-term issues that stand in the way of long-term success
	  • Prioritize issues that require no analysis (e.g., manager observation program)
	  • Identify controls that lay the foundation for long-term fixes
	▪ Address items that could derail the recovery effort
		▪ Conduct a thorough review of gaps to sustainable excellence using corporate, fleet, site, or industry personnel
		▪ Build detailed action plans; update unit recovery plans
		▪ Gain concurrence of path to success
		▪ Identify gaps not yet identified to fleet or industry standard
			▪ Continue to implement actions
			▪ Continue to track and monitor progress
			▪ Continue effectiveness reviews of actions
			▪ Incorporate remaining actions into business planning process
			▪ Check and adjust through regular oversight meetings

Key Actions	▪ Launch recovery team
	▪ Identify key near-term issues
	▪ Drive near-term issues to closure
	▪ Refine/focus recovery plan based on known gaps
	  • Station recovery plans
	  • Unit recovery plans
	▪ Communicate case for change
	▪ Engage the station in the recovery effort
	▪ Change the plant behaviors
		▪ Conduct focused reviews of each functional area
		▪ Develop or update existing action plans and change management plans
		  • Station recovery plans
		  • Unit recovery plans
		▪ Conduct challenge sessions
			▪ Conduct action closeouts and effectiveness reviews
			▪ Conduct monthly results tracking and oversight meetings
			▪ Communicate progress
			▪ Document process
			▪ Define and distribute lessons learned

This proven approach aligns with actions described in INPO 12-011.

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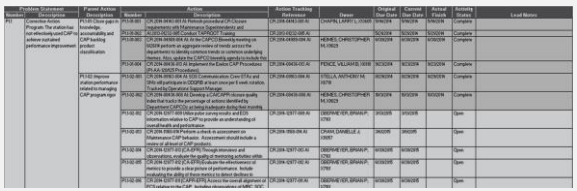
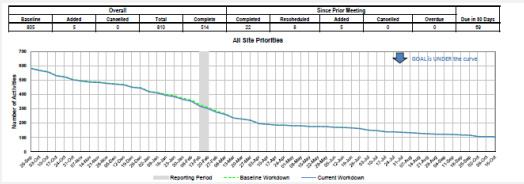
What Tools Will Help Us?

There are two tools essential to every plant recovery effort: a dedicated team of experts who are taken out of their current roles to drive improvement and a time-tested toolkit.

The Recovery Team:

- Is cross-functional by design
- Includes fleet, corporate, and site personnel
- Drives the development of the recovery plan

The Plant Recovery Toolkit:

Tool	Description	Example
Recovery Plan	▪ Focuses on the key themes and actions required for improvement – not a list of "good ideas" ▪ Simplistic enough to communicate to internal and external stakeholders ▪ Guides and aligns the station leadership and recovery team efforts	
Functional Area Gap Reviews	▪ Identifies the performance gaps that are standing in the way sustainable excellence ▪ Engages corporate and the sites in a collaborative process to prioritize and drive the solutions on path to success	
Closure Quality Review Committee	▪ Reviews dashboard/burn-down curves and other content to ensure progress is being made on recovery plan ▪ Ensures that recovery plan actions are completed on time and to high-quality standards	

What Are the Lessons Learned?

ScottMadden has successfully led more than 15 nuclear plant recovery projects. Here is what we have learned.

Phase One
Focus on Performance Basics

- Recovery team staffing should come from outside of the recovery plant, if possible
- Transparency of what the recovery team is working on and the results they are producing is critical
- Recovery plan should include all identified performance gaps (e.g., INPO AFIs, 95-003 findings, etc.)
- Leadership changes early on can set the tone for the organization
- Corrective action program (CAP) actions closed without quality are a leading indicator of behaviors
- Recovery team's focus should be to train site personnel on what excellence looks like (e.g., meeting behaviors, outage scope freeze)
- Recovery team should consist of individuals who know what excellence looks like

Phase Two
Conduct Functional Area Gap Review

- Focus needs to be on identifying unknown/undocumented gaps to industry excellence
- Performance gap analysis and action planning are conducted collaboratively, not just another critique without "some skin in the game" to fix the problem

Phase Three
Track and Monitor Progress

- Leadership needs to meet consistently to review progress and create a burning platform for gap closure
- Tracking of site recovery plan action status should be done through regular CAP action-tracking reporting
- Accountability meetings are held to review action closure and results
- Results book showing all successes and metrics should be developed and reviewed at oversight meetings

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Who Knows the Path and Can Guide Us?

ScottMadden knows the path and has been helping clients navigate the nuclear industry for more than 30 years

- ScottMadden knows how to recover performance of nuclear power plants, because we:
  - Know "what good looks like" to INPO and NRC
    - Co-developed the first iteration of INPO 12-011 – An Implementation Framework to Significantly Improve Nuclear Plant Performance
  - Have led more than 15 nuclear power plant recovery projects
  - Understand how to leverage a fleet and industry to turn around plant performance

- ScottMadden knows the nuclear industry, because we:
  - Have delivered projects to more than 80 percent of the operating and decommissioned commercial nuclear generation stations in North America
  - Understand our clients' commitments to safe, reliable nuclear operations, especially while undertaking operational changes, including controlling costs, and implementing improvements in costs and operational performance
  - Have trained industry experts on corporate governance and oversight
- ScottMadden delivers real results
  - Our approach is practical and can be put into play immediately. ScottMadden excels at helping our clients take ownership and to continue achieving results—even after the consultants leave the sites

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Want to Learn More?

Sean Lawrie

Partner

ScottMadden, Inc.
2626 Glenwood Avenue
Suite 480
Raleigh, NC 27608
seanlawrie@scottmadden.com
O: 919-781-4191 M: 404-731-6338

Smart. Focused. Done Right.

Ed Baker

Partner

ScottMadden, Inc.
3495 Piedmont Road
Building 10, Suite 805
Atlanta, GA 30305
edbaker@scottmadden.com
O: 404-814-0020 M: 678-488-8142

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John Rendall

Director

ScottMadden, Inc.
3495 Piedmont Road
Building 10, Suite 805
Atlanta, GA 30305
jrendall@scottmadden.com
O: 404-814-0020 M: 404-313-3407

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