

**A Nuclear Power Plant Re-Shapes Culture to Improve Performance**

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**I. INTRODUCTION**

In July of 2015, INPO downgraded a midwestern nuclear power plant from a “2” to a “3” and placed them on “special focus.” As part of their recovery plans, the plant’s leadership team recognized they’d need to reshape culture.

**II. MEASURING AND MANAGING CULTURE**

“You can’t manage what you can’t measure,” so leaders launched their culture re-shaping efforts by establishing a culture metric. Specifically, leaders asked: In a culture that helps us return to INPO 2-level performance, what’s the mindset, and what are the behaviors we need to see more consistently from all employees? That exercise produced 17 answers, which became the basis of the culture metric.

The plant conducted an employee survey to establish a baseline culture metric, which identified the biggest gaps they needed to address—across the plant and within each department. They set improvement targets of .3 standard deviations.

Training equipped leaders at every level with practical tools and guidance for measurably strengthening culture. The training reflected the principle that leaders shape culture, intentionally *or not*, through signals they broadcast on Five Frequencies®.

1. Their decisions and actions
2. What they reward and recognize
3. What they tolerate (or don’t)
4. Informal communication
5. Formal communications

Training also incorporated elements of INPO 15-005 [Leadership and Team Effectiveness Attributes]. Leaders committed to culture-shaping action plans for which they were held accountable.

From 2016-17, plant leadership conducted six follow-up post-test surveys to determine where they were moving the needle on culture and where they needed to recalibrate. After each measurement, department leaders conducted after-action reviews and

updated their culture-shaping action plans.

**III. RESULTS**

Culture metric scores improved dramatically over that time and the plant exceeded their .3 standard deviation targets within one year.

As plant culture measurably improved, so did plant performance. Two years after the downgrade, the plant received a “2” rating from INPO and was removed from “special focus.”

TABLE I. Examples of Changes in Culture as Indicated by Customized Know/Feel/Do® Culture Metrics

Culture Metric	Baseline (1)	Current	Change
Employees know what industry excellence looks like	3.81	4.33	0.52
Employees feel that leaders are committed to real change and improvement	3.06	4.42	1.36
Employees feel we care about each other	3.56	4.31	0.75
Employees feel empowered to speak up, solve problems, suggest improvements, and make positive changes	3.64	4.33	0.69
Employees learn from mistakes, rather than rationalizing or minimizing them	4.13	4.53	0.40
Employees take ownership for team results	4.21	4.53	0.32

(1) All measures are on a 5-point agreement scale, where 1 = strongly disagree and 5 = strongly agree.

As plant culture measurably improved, operational performance followed, including the items in Table 2.

TABLE 2. EVIDENCE OF IMPROVED PLANT PERFORMANCE 2015 – 2017

<b>Accomplishment / Indication of Improved Performance</b>	<b>Category</b>
Increased megawatt output	Operations
The most successful refueling outage in plant history: <ul style="list-style-type: none"> <li>• Zero recordable injuries</li> <li>• Zero site HU resets</li> <li>• Scope completion (99.9 percent)</li> <li>• ODMI closeout (Zero ODMIs coming out of RF18)</li> <li>• Proper decision-making</li> <li>• Teamwork</li> </ul>	Operations
Over 580 days without a recordable incident (first time in plant history)	Safety
[Union] division marks two full years without a recordable injury	Safety
TISAR hits 0 (first time in plant history)	Safety
Accreditation of maintenance and technical training programs	Training

#### IV. CONCLUSION

A plant's culture is either an asset or liability. It *helps* operational performance...or *hurts* it. Recognizing this, plant leaders can establish a culture metric as a reliable leading indicator of actual plant performance.