

case study

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**Sustaining World-Class Performance**  
STP Nuclear Operating Company



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**OVERVIEW**

The two reactors at the South Texas Project (STP) went into commercial operation in 1988 and 1989, respectively, and by the early 1990s the plant had achieved high operational standards and was setting electrical production records. But these early accomplishments could not be sustained. Morale and production declined, undermining performance until the plant came to a standstill.

In February 1993, the Nuclear Regulatory Commission (NRC) stepped in and shut down STP, citing six major reasons for the suspension of operations. The agency assigned a Diagnostic Evaluation Team (DET) and placed STP on the NRC’s “Watch List”.

vital statistics

- Nuclear power plant
- Second-largest electrical generation capacity in U.S.
- Approximately 1500 employees and contractors
- Serves nearly two million homes
- Improved managers’ ability to effectively lead change

Through a series of interviews, the NRC identified the root causes of STP’s decline. Surprisingly, the source of the problems was not primarily operational, but had more to do with the business climate that had developed. As the plant’s difficulties intensified, the management team had inadvertently created

an atmosphere of distrust by operating in a top-down, authoritarian style. Employees at STP had so little trust in leadership they often camouflaged problems and were afraid to speak the truth.

The DET report declared that the plant’s management was the fundamental problem. The Chairman of the NRC later stated that STP’s difficulties were “a prime example of what bad leadership can do to an organization.”

**A NEW MODEL OF SUCCESS**

To address this crisis, STP’s brought in a new management team consisting of a new leader and six industry experts.

This new team quickly concluded that the old command-and-control approach to management could not continue. Benchmarking other power plants, the team learned how Interaction Associates had helped in the successful turnaround of several utilities across the country.



The plant’s leaders knew that in order to change their results, they would have to change their culture. They selected Interaction Associates as their culture change partner and decided to focus their efforts on building a “collaborative culture” based on the behaviors of their leaders, both formal and informal, at all levels.

Interaction Associates and the STP team developed a new organizational and leadership model that emphasized employee involvement, collaboration and continuous improvement. Key elements of the change process included:

- adopting the Interaction Associates’ *Facilitative Leadership*® model for all leaders in the organization;
- immediately training all leaders (in a cascading process) in the collaborative tools of *Facilitative Leadership*;
- reorganizing the plant into teams chartered to address specific corrective actions identified by the company and the NRC;
- chartering cross-functional teams to address work processes;
- supporting team-based decisions throughout the operation;
- partnering with outside consultants to coach leadership teams through the change effort; and
- actively promoting a trusting work environment.

**INCREASED EMPLOYEE PERFORMANCE AND SATISFACTION**

To make the culture change permanent, STP relied on Interaction Associates to transmit skills in leadership, teamwork and facilitation throughout the plant. STP’s senior managers were the first to attend Interaction Associates’ *Facilitative Leadership* workshop, a leadership forum that embodies seven leadership practices proven to increase employee engagement, performance and satisfaction. The STP team felt that *Facilitative Leadership* best expressed and explained the behaviors necessary

for continued success. Realizing that skills were very practical and could be applied immediately, the STP team quickly extended the training to two more levels of plant leadership. That group of leaders in turn recommended that *Facilitative Leadership* training be provided throughout the organization to establish a common “language” and quickly implement the culture change so critical to STP’s recovery.

As a result, twelve employees chosen

for their leadership abilities were trained to deliver the workshop to their peers. Interaction Associates’ consultants worked with STP executives to customize the workshop to address the plant’s unique issues and to incorporate the continuous improvement model.

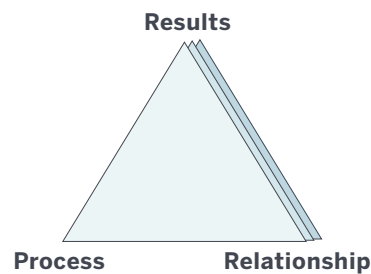
Since then, hundreds of employees – every manager and leader - have been trained in, and are successfully using, this collaborative leadership style. An additional fifty employees were taught the skills of *Essential Facilitation*,

enabling them to guide problem-solving sessions, build agreements, resolve conflict and ensure productive, efficient group interactions.

To ensure that training and education become a process for behavioral change and not just a series of isolated events, Interaction Associates continues its partnership with STP to reinforce skills and identify new areas of growth. Together, the two organizations work to continuously integrate the principles of leadership in a high-involvement workplace into the day-to-day activities at STP.

**DRAMATIC SUCCESS ON MULTIPLE DIMENSIONS**

Leaders who are accountable for results tend to focus their attention on reaching a goal as quickly as possible. However, leaders at STP learned that by limiting their definition of success to achieving goals, they were undermining the long-term performance of the operation. *Facilitative Leadership* taught them that one of the seven practices of a facilitative leader is measuring success in not one, but three critical dimensions: results, process and relationship.



**Results** - Is the task accomplished? Is our goal achieved?

**Process** - How is the work getting done? Is the process designed and managed well? How is the process monitored and evaluated? Can the process be replicated?

**Relationship** - How are people relating to each other? How are they relating to the organization? How do they feel about their involvement and contribution?

leadership challenges

- Operation suspended by the Nuclear Regulatory Commission in 1993
- Atmosphere of distrust among employees
- Command-and-control, hierarchical management model

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Leaders in STP now collect and evaluate data related to these measures and make conscious choices about where to focus the organization's attention to have the greatest impact. To date, the team's accomplishments include the following.

### RESULTS

- The Institute of Nuclear Power Operations has repeatedly rated STP as Excellent, INPO's highest rating.
- STP has won more honors than any other U.S. nuclear plant, including seven Top Industry Practice awards and the industry's highest honor – The Best of The Best Award – three times.
- STP has led all two-unit plants in the country in production for four consecutive years (2004 through 2007).
- From 2005 through 2007, STP achieved the lowest fuel cost of all power plants in the U.S.
- Unit 1 led all reactors worldwide in production in 2007.

### PROCESS

- A redesign of the outage contractor In-processing system saved the plant \$1.8 million. The average time to complete in-processing was cut from more than seven to less than two days.
- The outage team, a cross-functional one responsible for refueling the plant and concurrent maintenance tasks, improved processes so dramatically that outage time was slashed from 75 days to an industry-leading average of 22 days.

### RELATIONSHIP

- STP has integrated the facilitative culture expectations into its Core Values and Performance Management Reviews. Culture Assessments, performed every 2 years, remain consistently high.

### AN INDUSTRY BENCHMARK


The turnaround at STP and its continued excellent performance have been so dramatic that industry leaders now look to this plant for ideas and solutions to their own operational problems. Once forced to suspend operations, the plant is now the leading two-unit plant in the country.

## our solutions

- Collaborative Culture Change
- Facilitative Leadership®
- The Coaching EDGE™
- Essential Facilitation®

In 2007, NRG Energy, Inc. (NYSE: NRG) and the STP Nuclear Operating Company applied to the Nuclear Regulatory Commission for a Combined Construction and Operating License Application to build and operate two new

nuclear units at the STP plant site. This license submittal to move U.S. electrical generation to new, cost-effective baseload power that does not contribute to global climate change was the first license application submitted to the NRC for a new nuclear plant in 29 years.

 Interaction Associates is a 40-year-old performance improvement company with a focus on leadership, teamwork, and process consulting. We equip Fortune 100 companies and government agencies with practical skills, tools and mindset to think strategically and work collaboratively to solve problems and create opportunities. We develop leaders at all levels as well as those who manage organizational change. Our skilled consultants have been helping companies overcome their toughest challenges since 1969.