

# SAFETY CULTURE

# TRAIT TALK

Issue 1

March, 2014

**Trait Talk** was developed to provide you with a better understanding of the nine safety culture traits found in the U.S. Nuclear Regulatory Commission's (NRC) Safety Culture Policy Statement (SCPS) and how they apply to you—whether you are an NRC employee interacting with an external stakeholder, an NRC licensee, a vendor or contractor employee, an organization interested in the safe and secure use of nuclear materials, or others involved in nuclear safety regulation. Please see page 4 of Safety Culture Trait Talk for more information on the SCPS.

Experience has shown that certain personal and organizational traits are present in a positive safety culture. A trait, in this case, is a pattern of thinking, feeling, and behaving that emphasizes safety, particularly in goal conflict situations, for example, in situations where production, schedule, or just the cost of effort may conflict with doing the job safely. The NRC identified nine traits of a positive safety culture in the SCPS, although the agency recognizes that additional traits may also be important. In addition, please note that the traits were not developed to be used for inspection purposes.

**Each Trait Talk includes a fictional scenario based on a different licensee or community. The scenario used in this Trait Talk is based on the reactor community.**

As you read through Trait Talk, consider the following questions:

1. How does this trait apply to my organization?
2. Are there other attributes and examples that better fit my organization?
3. What impact does this trait have on the safety culture in my organization?
4. How does this increase my understanding of the safety culture in my organization?
5. How could I improve the performance of this trait in my organization?

## Leadership Safety Values and Actions

*One of the traits of a positive safety culture as described in the U.S. Nuclear Regulatory Commission's Safety Culture Policy Statement.*

### What Is The Definition Of Leadership Safety Values And Actions?

The NRC's SCPS defines Leadership Safety Values and Actions as when leaders demonstrate a commitment to safety in their decisions and behaviors.

### Why Is This Trait Important?

Leaders perform essential functions in organizations. The quality and actions of leadership have widespread consequences for an organization's safety culture and its performance. Leaders have significant power to affect an organization's safety culture through the priorities they establish, the behaviors and values they model, the reward systems they administer, the trust they create, and the context and expectations they establish for interpersonal relationships, communication, and accountability. Leaders also exert significant influence on change initiatives. They have the power and responsibility to set strategy and direction, align people and resources, motivate and inspire people, and ensure that problems are identified and solved in a timely manner. A lack of commitment or clear communication about what is important to the organization can create a conflict for employees who must then decide between competing messages. This leads employees to their own interpretations, thereby potentially negatively affecting the organization's safety culture. It is clear that behavior matters and leadership behaviors that support a positive safety culture are critical.

Leaders at all levels play an important role in establishing the organization's environment and safety culture. This is evident in the manner in which competing goals that occur at every level of the organization are managed. There may be conflicting demands from a cost and schedule perspective versus safety and quality. The organization's members may face these competing goals on a daily basis. These decisions may occur at all levels of the organization, not just at the top. Each employee may encounter his or her version of these conflicts and will be faced with making decisions as he or she engages in activities to resolve them. The organization's safety culture plays a significant role in guiding employee's decisions; in other words, what they view as the organization's priorities. Is the organization's priority safety or production? This is one of the important junctures where leadership at the top of the organization is critical in setting the standards and establishing overarching safety priorities that all employees understand take precedence over all competing demands.<sup>1</sup>

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## WHAT DOES THIS TRAIT LOOK LIKE?

**Resources:** Leaders ensure that personnel, equipment, procedures, and other resources are available and adequate to support safety.

*Leaders ensure that staffing levels are sufficient and personnel are qualified for the work they are performing. Leaders ensure that facilities are maintained and tools, equipment, procedures, and other resources are readily available to support work performance. Finally, leaders ensure that sufficient corporate resources are allocated for maintenance, equipment, and personnel to ensure safe and reliable operation.*

**Field Presence:** Leaders are commonly seen in working areas of the organization observing, coaching, and reinforcing standards and expectations. Deviations from standards and expectations are corrected promptly.

*Leaders ensure sufficient oversight of work activities. They practice visible leadership in the field by coaching, mentoring, reinforcing standards, and reinforcing positive decisionmaking practices and behaviors. Leaders discuss their observations in detail with the group they observed and provide useful feedback about how to improve individual performance. They model safe behaviors and high standards of accountability as a way to encourage others.*

**Incentives, Sanctions, and Rewards:** Leaders ensure incentives, sanctions, and rewards are aligned with safety policies and reinforce behaviors and outcomes that reflect safety as the overriding priority.

*Leaders ensure disciplinary actions are appropriate, consistent, and support safety and a safety conscious work environment. They reward individuals who identify and raise issues affecting safety and praise behaviors that reflect a positive safety culture. Leaders foster an environment that promotes accountability and hold individuals accountable for their actions. Leaders consider potential chilling effects when taking disciplinary actions and other personnel actions, and they take compensatory actions when appropriate.*

**Strategic Commitment to Safety:** Leaders ensure priorities are aligned to reflect safety as the overriding priority.

*Leaders develop and implement cost and schedule goals in a manner that reinforces the importance of safety. Information from independent oversight organizations is used to help establish priorities that align with safety. Leaders establish strategic and business plans that reflect safety as the overriding priority and ensure that corporate priorities also align with safety priorities.*

**Change Management:** Leaders use a systematic process for evaluating and implementing change so that safety remains the overriding priority.

*Leaders use a systematic process for planning, coordinating, and evaluating the safety impacts and potential negative effects on the willingness of individuals to raise safety concerns, when making major changes. This includes decisions concerning changes to organizational structure and functions, leadership, policies, programs, procedures, and resources. Leaders ensure safety is maintained when planning, communicating, and implementing change and ensure that significant unintended consequences are avoided. Leaders ensure that individuals understand the importance of, and their role in, the change management process.*

**Roles, Responsibilities, and Authorities:** Leaders clearly define roles, responsibilities, and authorities to ensure safety.

*Leaders ensure roles, responsibilities, and authorities of executives, senior managers, and corporate managers are clearly defined, understood, and documented. They appropriately delegate responsibility and authority to promote ownership and accountability. Leaders ensure that recommendations from review boards and independent oversight organizations do not override senior leaders' ultimate responsibility for decisions affecting safety.*

**Constant Examination:** Leaders ensure that safety is constantly scrutinized through a variety of monitoring techniques, including assessments of safety culture.

*Leaders ensure that board members and members of independent oversight organizations meet with different levels of management and staff to develop an understanding of the status of the organization's safety culture. They use a variety of monitoring tools—including employee surveys, self- and independent assessments, external safety review board member feedback, and employee concern investigations—to regularly monitor safety culture. Leaders support and participate in candid assessments of workplace attitudes and safety culture and act on issues that affect trust in management and detract from a healthy safety culture.*

**Leader Behaviors:** Leaders exhibit behaviors that set the standard for safety.

*Leaders "walk the talk," modeling correct behaviors, especially when resolving apparent conflicts between safety and production. They act promptly when a safety issue is raised to ensure it is understood and appropriately addressed. Leaders maintain high standards of personal conduct that promote all aspects of a positive safety culture, and actively seek out the opinions and concerns of workers at all levels. Leaders encourage personnel to challenge unsafe behavior and unsafe conditions, and motivate others to practice positive safety culture behaviors.<sup>2</sup>*

# SAFETY CULTURE TRAIT TALK

## WHAT IS A SCENARIO IN WHICH THIS TRAIT COULD PLAY A ROLE?

Senior management at a nuclear power plant developed a new incentive program after noticing substantial schedule delays during outages at the plant. The incentive program included bonuses for meeting schedule goals during outages. During an outage, a supervisor signed off on work without completing an independent verification, which was not required but recommended by procedure. The supervisor made this decision because there were no qualified workers available at the time and waiting for the next shift of workers would have caused a schedule slip, affecting the potential outage bonus. The supervisor defended the decision to management by stating that a peer check was completed, and considered sufficient to verify the work performed.

Over time, peer checks were substituted for a number of independent verifications during outages because it saved time, helped the team stay on-schedule, and resulted in larger bonuses at the end of the outage. After several years of this practice, a short in a breaker that was replaced during an outage inadvertently caused a loss of power to an entire train of equipment, which then caused a reactor trip. One of the primary cooling pumps on the active train was out of service at the time of the loss of power. It had been scheduled for repair during the outage but was rescheduled because waiting for the parts to repair the pump would have extended the outage. As a result, the plant had to rely on emergency systems to cool the reactor core because both of the primary cooling pumps were unavailable.

The root cause analysis of the event found that an independent verification of the breaker replacement was not completed because common practice had been to accept a peer check as adequate verification of the work performed. Management's focus on meeting schedule goals, and acceptance of peer checks in place of recommended independent verifications, contributed to a reactor trip that challenged the plant's safety systems.<sup>3</sup>

Thinking about the scenario discussed above, consider the following questions:

1. How does this scenario apply to the safety culture trait of Leadership Safety Values and Actions?
2. What kinds of leadership behaviors would have reinforced safety as the overriding priority?
3. How could management have handled this situation differently?

## WHO CAN I CONTACT WITH A QUESTION OR SUGGESTION?

The NRC looks forward to continuing to provide you with information about the traits of a positive safety culture. If you have a question or would like to make a suggestion, please contact the U.S. Nuclear Regulatory Commission, Office of Enforcement, Safety Culture Team, at [external\\_safety\\_culture.resource@nrc.gov](mailto:external_safety_culture.resource@nrc.gov).



### Sources of Information:

1 "*Why is this trait important?*" was derived, in part, from a literature review (*Agencywide Documents Access and Management System (ADAMS) Accession No. ML13023A054*) prepared by Pacific Northwest National Laboratories for the NRC Office of Nuclear Regulatory Research.

2 "*What does this trait look like?*" was derived from the Safety Culture Common Language effort (*ADAMS Accession No. ML13031A343*), under the direction of the Office of Nuclear Reactor Regulation. Panelists from the NRC, nuclear power industry, and the public created attributes of a positive nuclear safety culture, and examples of each attribute that a nuclear power organization should demonstrate in maintaining a positive safety culture. Although these attributes and examples were created specifically for the reactor community, they may also be applicable to various other communities and organizations. For purposes of Trait Talk, the examples were partially rewritten to increase applicability to nuclear as well as non nuclear communities.

3 "*What is a scenario in which this trait played a role?*" was developed specifically for Safety Culture Trait Talk for educational purposes only. The scenario is fictional and any resemblance to actual events, people, or organizations is purely coincidental.

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## WHAT IS THE NRC'S SAFETY CULTURE POLICY STATEMENT?

There are many definitions of safety culture. Most of these definitions focus on the idea that in a positive safety culture individuals and organizations emphasize safety over competing goals, such as production or costs, ensuring a safety-first focus. The NRC's SCPS defines nuclear safety culture as *the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment.* Experience has shown that certain personal and organizational traits are present in a positive safety culture. The following traits were included in the NRC's SCPS, although additional traits may also be important in a positive safety culture.

Leadership Safety Values and Actions	Problem Identification and Resolution	Personal Accountability
<i>Leaders demonstrate a commitment to safety in their decisions and behaviors.</i>	<i>Issues potentially impacting safety are promptly identified, fully evaluated, and promptly addressed and corrected commensurate with their significance.</i>	<i>All individuals take personal responsibility for safety.</i>
Work Processes	Continuous Learning	Environment for Raising Concerns
<i>The process of planning and controlling work activities is implemented so that safety is maintained.</i>	<i>Opportunities to learn about ways to ensure safety are sought out and implemented.</i>	<i>A safety conscious work environment is maintained where personnel feel free to raise safety concerns without fear of retaliation, intimidation, harassment or discrimination.</i>
Effective Safety Communications	Respectful Work Environment	Questioning Attitude
<i>Communications maintain a focus on safety.</i>	<i>Trust and respect permeate the organization.</i>	<i>Individuals avoid complacency and continually challenge existing conditions and activities in order to identify discrepancies that might result in error or inappropriate action.</i>

The NRC's SCPS provides the NRC's expectation that individuals and organizations performing regulated activities establish and maintain a positive safety culture commensurate with the safety and security significance of their activities and the nature and complexity of their organizations and functions. Because safety and security are the primary pillars of the NRC's regulatory mission, consideration of both safety and security issues, commensurate with their significance, is an underlying principle of the SCPS.

The NRC's SCPS applies to all licensees, certificate holders, permit holders, authorization holders, holders of quality assurance program approvals, vendors and suppliers of safety-related components, and applicants for a license, certificate permit, authorization, or quality assurance program approval subject to NRC authority. In addition,

the Commission encourages the Agreement States (States that assume regulatory authority over their own use of certain nuclear materials), their licensees, and other organizations interested in nuclear safety to support the development and maintenance of a positive safety culture within their regulated communities. The SCPS is not a regulation; therefore, it is the organization's responsibility, as part of its safety culture program, to consider how to apply the SCPS to its regulated activities.

The NRC's SCPS, which includes the definition of nuclear safety culture and the nine traits of a positive safety culture, can be found on the NRC's Safety Culture Web site. The Web site includes additional safety culture information, as well as the NRC safety culture case studies, which describe how the presence or absence of safety culture traits affects the outcome of the events.