

Safety Culture

Safety and Security

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Outline

- NRC's Safety Culture Policy Statement (SCPS) interface of safety and security
- Reactor Oversight Process
 - Security inspection Findings in Safety Culture
- Assessment of Safety Culture
- Corrective Action Programs
- Summary

Safety Culture Policy Statement



Sets forth the Commission'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 actions and the nature and complexity of their organizations and functions

Safety Culture Traits

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

Example: Questioning Attitude (attributes and behaviors)

- Challenge the unknown
 - Individuals maintain a questioning attitude
 - Individuals stop work activities when confronted with an unexpected condition
- Avoid complacency
 - Leaders ensure that specific actions are discussed and understood during job planning
 - Individuals consider undesired consequences of their actions before beginning work

Security

- Both safety and security are NRC cornerstones.
- Security was considered throughout the process of the development of the SCPS and a preamble in the Statement of Policy was included to reinforce this concept.
- The NRC's SCPS encompasses security.

Security

SCPS Statement of Policy- Preamble

- *... Organizations should ensure that personnel in the safety and security sectors have an appreciation for the importance of each, emphasizing the need for integration and balance to achieve both safety and security in their activities. Safety and security activities are closely intertwined. While many safety and security activities complement each other, there may be instances in which safety and security interests create competing goals. It is important that consideration of these activities be integrated so as not to diminish or adversely affect either; thus, mechanisms should be established to identify and resolve these differences. A safety culture that accomplishes this would include all nuclear safety and security issues associated with NRC regulated activities.*

Security

SCPS Statement of Policy - Preamble

“... Additionally, it should be noted that although the term “security” is not expressly included in the traits, safety and security are the primary pillars of the NRC’s regulatory program. Consequently, consideration of both safety and security issues commensurate with their significance, is an underlying principle of the Statement of Policy.”

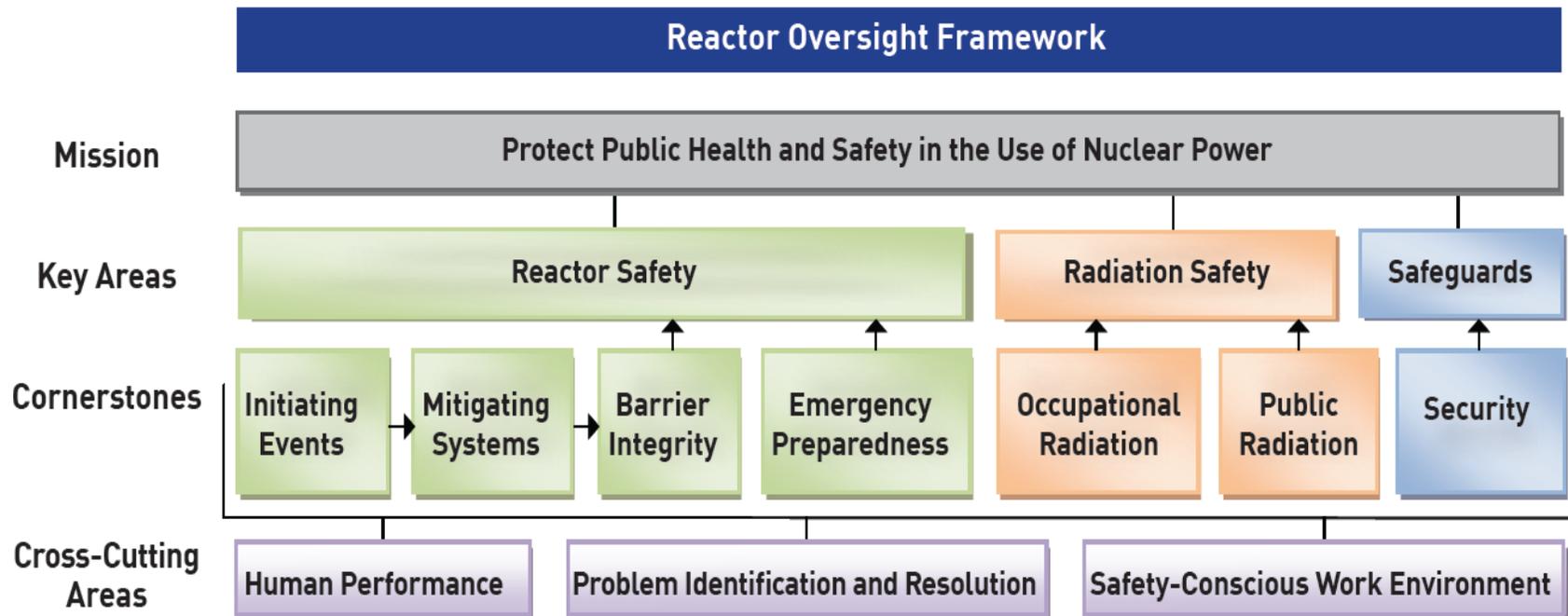
Safeguards

- NRC's safeguards program ensures that special nuclear material is not used in clandestine fissile explosives and does not pose an unreasonable risk due to radiological sabotage.
- Safeguards include
 - physical protections of facilities and special nuclear material
 - material control and accounting for special nuclear material

Safeguards

- NRC regulations for safeguards include:
 - Security organization (training and duties)
 - Barriers & designated areas, access controls, alarms
 - Contingency response plans and procedures
 - Transportation of special nuclear materials
 - Fitness for duty
- Oversight is through inspections

Security and Safeguards in the Reactor Oversight Framework



ROP Cross-Cutting Aspects and Cross-Cutting Issues



- Cross-cutting aspects (CCAs) are assigned to NRC inspection findings when performance deficiencies have potential cross-cutting causal factors
- NRC assigns a cross-cutting issue (CCI) through its assessment process when:
 - a cross-cutting theme exists,
 - and NRC has concerns about progress in addressing the issue
- CCAs and CCIs may indicate a potentially degraded safety culture and warrant further evaluation
- Conclusions about safety culture are only made as a result of safety culture assessments conducted by qualified staff

Safety findings and SCPS traits from ROP

Problem Identification and Resolution (P).1 – Identification

- The licensee failed to identify weaknesses in emergency response organization performance during an exercise during the presentation of the licensee's evaluation of the exercise.

Supporting Example: Problem identification and Resolution (PI).1 Example 1 – Individuals recognize deviations from standards.

Security findings and SCPS traits from ROP

Human Performance (H).8 – Procedure Adherence

- Licensee failed to ensure that personnel followed procedures regarding control of safeguards material.

Supporting Example: Work Processes (WP).4 Example 1 –
Individuals follow procedures.

Security findings and SCPS traits from ROP

Human Performance (H).1 – Resources

- The licensee failed to implement a testing program to ensure that security systems were capable of performing their intended functions. The licensee failed to maintain accurate procedures for testing the intrusion detection system by failing to incorporate a test method for a specific threat tactic.

Supporting Example: Leadership Safety Values and Actions

(LA).1 Example 4 – Leaders ensure tools, equipment, procedures, and other resource materials are available to support successful work performance, including risk management tools and emergency equipment.

Security findings and SCPS traits from ROP

Human Performance (H).12 – Avoid Complacency

- An employee who alarmed a walk-through metal detector was not challenged by security staff until inspectors raised the issue. Licensee staff failed to recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes.

Supporting Example: Questioning Attitude (QA).4 Example 3 – Individual contributors perform a thorough review of the work site and planned activity every time work is performed rather than relying on past successes and assumed conditions.

SC Assessment

- Reactor community conducts SC self-assessments every 2 years
- NRC can request a licensee to conduct a SC Assessment based on performance and the Action Matrix
- NRC can conduct a SC Assessment based on performance and the Action Matrix

Corrective Action Programs (CAP) U.S. NRC

United States Nuclear Regulatory Commission
Protecting People and the Environment

- The reactor community and fuel cycle facilities have corrective action programs to report and resolve plant issues with a low threshold.
- NRC reviews corrective action programs through inspection procedures
 - IP88161, Corrective Action Program Implementation at Fuel Cycle Facilities
 - IP71152, Problem Identification and Resolution for nuclear power reactors

Summary

- NRC communicates safety culture expectations through the SCPS
- Security (including safeguards) is included in the SCPS
- The SCPS traits and behaviors apply to safety and security
- Security is a part of oversight through the ROP
- Reactor community conducts SC self-assessment and the NRC can review licensee SC self-assessments as well as conduct their own SC assessments through the inspection process.
- Licensee Corrective Action Programs are assessed through the inspection process.

For More Information



- Please visit NRC's safety culture webpage at:
<http://www.nrc.gov/about-nrc/safety-culture.html>
- Please visit NRC's security webpage at:
<http://www.nrc.gov/security.html>
- Contact NRC safety culture staff via email at:
external_safety_culture.resource@nrc.gov