NRC's Safety Culture Initiative

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Objective

- The objective of this presentation is to:

    - Provide information on NRC's safety culture (SC) effort and why it is important.

    - Provide examples of events where there is a nexus between the event and a weak SC.

    - Present NRC's draft policy statement and the products developed from a February 2-4, 2010, NRC sponsored workshop on SC.

    - Obtain feedback on workshop products.

    - Provide NRC's schedule/next steps involved with the SC effort.

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Who We Are and What Our Mission Is

- The NRC is a federal government agency that oversees reactor safety and security, reactor licensing and renewal, radioactive material safety, security and licensing, and spent fuel management (storage, security, recycling, and disposal).

- The NRC's mission is to regulate the nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.

Why Safety Culture is Important to the NRC

- Operating experience has demonstrated there is a nexus between SC and events at NRC-regulated facilities.

- SC contributes to the safe and secure use of radioactive materials.

- Because of this connection, NRC recognizes the importance of considering safety culture in its oversight programs.

Historical Events

- Events Attributed to Weaknesses in SC
  - 2002: Davis-Besse Nuclear Power Station, involving a degraded pressure vessel head cavity caused by years of undetected boric acid corrosion.
  - 2007: Peach Bottom Atomic Power Station, involving multiple security officers who were deliberately inattentive on multiple occasions, and deliberately failed to report observations of inattentiveness to their supervisors.

Historical Events (cont'd)

– 2002 through 2008: Philadelphia Veterans Affairs Medical Center, involving 97 radioactive treatment errors in which Iodine-125 seeds were incorrectly placed in the treatment of prostate cancer.

NRC Safety Culture Policy Statements

- Previous SC policy statements (SCPS):
  - 1989 Conduct of Operations
  - 1996 Safety Conscious Work Environment

- In February 2008 (COMGBJ-08-001), the Commission directed the staff "to expand the Commission's policy on safety culture to address the unique aspects of security and to ensure that the resulting policy is applicable to all licenses and certificate holders."

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Key Messages of the 2009 Policy Statement

- Applies to anyone performing or overseeing NRC regulated activities.
- Proposes a definition and characteristics of a positive SC.
- Safety and security are equally important in a positive SC.
- Licensees and certificate holders are responsible for developing and maintaining a positive SC.
- The NRC has an independent oversight role.

Commission Direction

- Publish the SCPS in the *Federal Register*

  (> 90-day comment period).

- Consider incorporating suppliers and vendors.

- Continue to engage broad range of

  stakeholders.

- Seek opportunities to comport terminology

  with existing standards and references.

Safety Culture Workshop

- Large variety of stakeholders attended (e.g., reactors, medical facilities, fuel cycle & gage manufactures, universities, Organization of Agreement States).

- Workshop was structured so that a panel of 16 stakeholders with various affiliations, with frequent attendee input, reached alignment on a SC definition and traits.

- Workshop defined: ***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."

- NRC draft definition of ***Safety Culture*** is "that assembly of characteristics, attitudes and behaviors in organizations and individuals, which establishes that as an overriding priority, nuclear safety and security issues receive the attention warranted by their significance."

NRC (Draft) SC Characteristics	February 2-4, 2010, SC Workshop Traits
Problem Identification and Evaluation The organization ensures that issues potentially impacting safety or security are promptly identified, fully evaluated, and promptly addressed and corrected commensurate with their significance.	**Problem Resolution and Metrics** The organization ensures that issues potentially impacting safety or security are promptly identified, fully evaluated, and promptly addressed and corrected commensurate with their significance.
Work Practices Personnel demonstrate ownership for nuclear safety and security in their day-to-day activities.	**Personal Responsibilities and Attitudes** Everyone is personally responsible for nuclear safety.
Work Planning and Control Process for planning and controlling work activities are implemented such that safety and security are maintained.	**Processes and Procedures** Processes for planning and controlling work activities are implemented such that safety is maintained.
Continuous Learning Environment The organization maintains a continuous learning environment in which opportunities to improve safety and security are sought out and implemented.	**Continuous Learning** Organizational learning is embraced.
Licensee Decision Making The organization's decisions ensure that safety and security are maintained.	**Leadership Safety Behaviors** Leaders demonstrate commitment to safety.
Safety Conscious Work Environment The organization maintains a safety conscious work environment in which personnel feel free to raise safety and security concerns without fear of retaliation.	**Encouraging Report of Problems** The organization maintains a safety conscious work environment in which personnel feel free to raise concerns without fear of retaliation.
	Effective Safety Communication Effective communication is essential to maintain focus on safety.
	Respectful Work Environment Trust and respect permeate the organization.
Accountability Roles, responsibilities, and authorities for safety and security are clearly defined and reinforced.	
Resources The organization ensures that the personnel, equipment, tools, procedures, and other resources needed to ensure safety and security are available.	

Comments

- NRC is interested in your views:

    – If you would like to submit comments on the SC definition and traits, please submit comments at the following website by Fall 2010: http://www.nrc.gov/about-nrc/regulatory/enforcement/contact-oe.html.

    – Please indicate which SC definition and traits you prefer and/or include potential comments to improve the SC definition and traits.

Schedule and Next Steps

- Consider the public comments on the draft SC policy statement, results of the February 2-4, 2010, workshop, and any comments received through SC website.

- Revise SC draft policy statement.

- Increase the attention given to SC

- Complete staff recommendations for final SC policy statement (by early 2011).

- Evaluate oversight programs for SC considerations.

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Questions?