







# Safety Culture and Decommissioning

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#### Introduction

- Many nuclear power reactors have been shutdown, or are in the process of decommissioning, in the United States.
- Fukushima Daiichi accident in 2011 was a key event for nuclear power, resulting in the shutdown of nuclear power reactors worldwide.









# Focus of Workshops and Reports

- Safety culture issues relevant to decommissioning include:
  - Uncertainty and stress may result in lower levels of trust, commitment and morale
  - Changing conditions of the plant can create new safety issues and challenges; staff must raise safety concerns
  - Staff, including contractors require training on new work processes and radiation risks
  - Resources must be sufficient to support the new demands on the organization









## Safety Culture Policy Statement (SCPS)

- Sets forth the Commissions expectations that individuals and organizations establish and maintain a positive safety culture.
- Applies to licensees of nuclear power reactors in all lifecycle phases, including decommissioning.
- All SCPS traits of a positive safety culture are relevant









## Leadership Safety Values and Actions

- Leaders should ensure that information is available and transparent during these plant changes to reduce uncertainty for staff.
- Leaders should identify staff competencies needed for decommissioning and provide necessary training to staff and contractors.
- Leaders should ensure that sufficient funds are available during all phases of decommissioning.









#### Problem Identification and Resolution

- Changing conditions of the plant can create new issues and challenges.
- Emergent safety issues should be identified and addressed in a timely manner.
- Frequent reports on plant status, and careful coordination and oversight of activities, will contribute to overall plant safety.









## **Environment for Raising Concerns**

- When staff feel that their jobs are at risk, or if they lose trust in their management and commitment to their organization, they may become reluctant to raise safety concerns.
- It is important that leadership continue to ensure that a safety-conscious work environment (SCWE) is maintained that encourages staff to raise safety concerns without fear of negative consequences.









#### Work Processes

- All staff, including contractors, need to understand new radiation and contamination risks due to the different conditions and physical layout of the plant.
- Preservation of corporate memory, documents, drawings and records of the plant is important as duties are transferred to other organizations.









#### **Effective Communication**

- Providing clear and frequent communication and information to employees on present and future situations, reduces uncertainty.
- Licensees should effectively communicate radiation and other risks during decommissioning.









## Questioning Attitude

- The organization should handle the changing status of the plant proactively and openly.
- Without a clear path forward and understanding of their role and future, employees may lose motivation to remain diligent on safety.
- A result of uncertainty and insecurity may be the loss of questioning attitude.









## "Safety Culture during Decommissioning"

- Provides background on decommissioning worldwide and safety culture issues.
- Discusses six of the Safety Culture Policy Statement traits as they apply to decommissioning.
- Includes behavioral examples of these traits selected from NUREG-2165, "Safety Culture Common Language."









### **Additional Information**

NRC's Safety Culture Webpage:

https://www.nrc.gov/about-nrc/safety-culture/sc-

policy-statement.html