Safety, Security, and Safeguards (3S) Culture

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October 2011
Overview

- Concept of Culture can be confusing
- Terminology is important to understanding
- Work is on-going in a number of areas
- Outline for this presentation:
  - Organizational culture
  - Safety Culture
  - MPC&A Culture
  - Nuclear Security Culture
  - Safeguards Culture
  - 3S Culture
  - Seek feedback on the concept of 3S Culture
Definitions of Culture as applied to a group:

- Way of life, or general customs and beliefs
- Shared beliefs and values
- Shared attitudes
- Customs, institutions, and achievements
- Customary beliefs, social forms, and material traits
- Predominant attitudes and behaviour
- Behaviours and beliefs
- Customs, ideas, and values
- Socially acquired values, beliefs, and rules of conduct
- Attitudes and behaviours.
Organizational Culture

- Whatever the type of “culture” one is describing, its basic function is to act as a guide for employee behavior.

- "A pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems."

Shein’s Model of Organizational Culture

- THE THREE LAYERS OF CULTURE

- ARTIFACTS
- ESPOUSED VALUES
- UNDERLYING ASSUMPTIONS
Applications of Organizational Culture

- Safety Culture
- MPC&A Culture
- Nuclear Security Culture
- Safeguards Culture
- 3S Culture
Safety Culture

That assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear plant safety issues receive the attention warranted by their significance.
MPC&A Culture

1998 Fred Morris Definition:

- A pervasive, shared belief among political leaders, senior managers, and operating personnel, that effective MPC&A is critically important, as manifested in decisions and actions, large and small.

US/Russia MPC&A Culture Project

- Used IAEA Safety Culture Model as a Basis
  - A subset of Safety Culture?
  - Security equal in importance as Safety?
- Threat
- Human performance
- Influenced the development of the IAEA Security Culture Guidance
Nuclear Security Culture

The assembly of characteristics, attitudes and behaviour of individuals, organizations and institutions which serves as a means to support and enhance nuclear security.
Safeguards Culture

▶ A shared belief among individuals, organizations, and institutions that strict attention to international safeguards requirements and affirmative cooperation with safeguards authorities will enhance their nonproliferation stature and benefit their missions.

Safeguards Culture

- A unifying commitment by an organization and its members to the effective and continuously improving implementation of material control and accounting practices; the prevention of misuse of facilities; and prevention of the dissemination of sensitive technology.


- A shared belief among individuals, organizations, and institutions that strict attention to international safeguards requirements and affirmative cooperation with safeguards authorities will enhance their nonproliferation stature and benefit their missions.

Similarities Among Cultures

Similarities:
- Beliefs
- Attitudes
- Organizations
- Individuals
- Institutions

- All Three Benefit the Mission
Key Differences

Level of risk determines level of importance staff member places on achieving objective.

Level of importance becomes key driver in development of organizational culture.

- Safety Culture: High priority after nuclear accidents at Chernobyl and TMI
- Security Culture: Burgeoning high priority due to concerns about nuclear terrorism
- Safeguards Culture: Nascent priority due to ongoing verification challenges in key states.
  - Previously low priority due to varied staff involvement and general commitment by States to use nuclear power for peaceful purposes
3S Culture

A widely shared belief that the Mission of the Organization is enhanced by an institutional and individual commitment to Safety, Security, and Safeguards.
Next Steps

- Consider interactions between safety, security, and safeguards regulations to understand whether and how certain regulations reinforce or undermine each other;
- Identify key elements for a set of model regulations that focus on integrating appropriate elements of nuclear safety, security and safeguards;
- Conduct a best practices forum with partners experienced in operating nuclear plants to clarify how a 3S Culture could be developed;
- Develop an IAEA guidelines document that defines and characterizes Safeguards Culture, with the possibility of a follow-on document to focus on 3S Culture.
Top-down approach

- New Security Policy
- Legislative/Regulatory Framework
- Enforcement
- Individual compliance
BACKGROUND

1998 MIIS Safeguards Culture Brownbag
September 1998 Nonproliferation Review Article
  MPC&A Culture Project
US/Russia Nuclear Security Culture Project and Definition
2005 Santa Fe INMM/ESARDA Safeguards Culture Conference
  2008 IAEA Nuclear Security Culture Guidelines
2009 Vilnius ESARDA Conference Safeguards Culture Paper
  April 2010 Portland ANS/INMM Safeguards Culture Paper
  June 2010 ESARDA Bulletin Article
2010 MIIS 3S Culture Brownbag
  July 2011 INMM Annual Meeting
  October 2011 ESARDA/INMM
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