

POLICY ISSUE NOTATION VOTE

April 27, 2009

SECY-09-0068

FOR: The Commissioners

FROM: R. W. Borchardt
Executive Director for Operations

SUBJECT: REPORT OF THE TASK FORCE ON INTERNAL SAFETY CULTURE

PURPOSE:

This paper informs the Commission of the staff's actions and commitments in response to the final report of the agency's Internal Safety Culture Task Force (ISCTF) and related Commission direction.

BACKGROUND:

The U.S. Nuclear Regulatory Commission (NRC) has continuously sought to improve its internal organizational effectiveness. For example, the Open Door Policy and Differing Professional Opinion program were first implemented in the late 1970s. In addition to ongoing improvement initiatives, significant events such as the 1979 accident at Three Mile Island and, more recently, the 2002 reactor vessel head degradation event at the Davis-Besse Nuclear Power Station caused significant changes in some of the NRC's internal organizational and regulatory processes. Since the NRC's overall mission is protection of the public health and safety, promote the common defense and security, and protection of the environment, organizational effectiveness improvements could be seen as linked to what is defined today as safety culture. The term "safety culture" initially arose from the general concept of organizational culture that was popularized in the management literature of the early 1980s. This concept initially lacked widespread acceptance by many technical managers, mainly because of its perceived subjectivity and a lack of consensus on how to apply it either to the regulatory oversight of licensees or to improve internal agency operations. As the concept received further study and

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attention, better definitions evolved, including a definition for nuclear industry use by the International Atomic Energy Agency (IAEA). The NRC referenced the IAEA definition of safety culture in a Policy Statement entitled "Conduct of Nuclear Power Plant Operations," dated January 24, 1989.

The most current international definition of the term "safety culture," as it relates to nuclear plants, appears in the International Nuclear Safety Advisory Group (INSAG) Safety Series No. 75-INSAG-4 (1991) as "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." This was the starting point for the Task Force deliberations.

In 1997, the NRC's Office of the Inspector General (OIG) initiated the first in a continuing series of Safety Culture and Climate Surveys (SCCS) as a means to identify where additional organizational improvements could be made. The surveys are voluntary, make provisions for anonymity, and are offered to all NRC employees, supervisors, and managers. In addition, the use of a survey made it possible to compare category-level results for the NRC to other U.S. organizations that had also completed such a survey. OIG has conducted the SCCS three times and plans to implement a fourth in May 2009. In each case, the staff has responded to the results of the SCCS with various actions to maintain areas identified as strengths and to improve areas identified as challenges.

In addition to the OIG employee surveys, the agency has addressed safety culture improvements more directly in recent years, as its organizational improvement initiatives have evolved. Most notable, in response to the 2002 reactor vessel head degradation event at Davis-Besse Nuclear Power Station, the staff engaged with stakeholders in the development of changes to the agency's Reactor Oversight Process (ROP) to better address safety culture. These changes were implemented and continue to be evaluated and modified, as appropriate, through the structured self-assessment process within the ROP.

DISCUSSION:

In accordance with the direction provided by the Commission in its staff requirements memorandum (SRM) M080317B, "Staff Requirements—Briefing on State of NRC Technical Programs," dated April 3, 2008, the staff formed the ISCTF to look for ways to increase awareness of the agency's internal safety culture and to provide the Commission with a report outlining potential initiatives that could improve it, including best practices currently used across the agency. The ISCTF was formally chartered on October 24, 2008.

The ISCTF engaged in intensive data gathering activities from October through December 2008, including 20 facilitated employee focus groups, a Web page portal for anonymous employee inputs, management interviews, a public meeting, and external and internal benchmarking. In addition, the ISCTF held weekly discussions to develop a common and shared understanding of internal safety culture and the factors that influence it. In early 2009, the ISCTF aggregated and analyzed the data, culminating in a 3-day full-member meeting in February to formulate recommendations. Further dialogue occurred as the ISCTF drafted its written report.

In response to a separate Commission direction, the staff is also developing a draft Safety Culture Policy Statement, applicable to all licensees and certificate holders, and to include the relationship between safety and security. This is being provided to the Commission separately.

The Commission's April 2008 SRM directing the staff to look at the NRC's internal safety culture asked the ISCTF to provide its report within 3 months of the next OIG SCCS, anticipated at that time to be completed by late 2008. The actual date for conducting the survey will be May 2009, with an expected date for results in summer 2009 and a final report in fall 2009. Therefore, in SRM-COMSECY-09-0001, "Internal Safety Culture Task Force Interface with Office of the Inspector General Safety Culture and Climate Survey," dated February 6, 2009, the Commission approved the staff's recommendation that the ISCTF complete its activities, render its report as planned in April 2009, and commit to the review of the SCCS results and possible actions noted in the Commitment section below.

In forwarding the enclosed report, the staff agrees with the Task Force recommendations and is planning activities to implement them. Regarding Recommendation #5 (establish a new position - dedicated safety culture advisor or organization), the Office of the Executive Director for Operations will establish this position as either a GG-15 or Senior Level Service level position within the Office of Enforcement in order to begin the internal safety culture initiative in close coordination with external safety culture activities, the agency allegations program (including the safety conscious work environment efforts), and also with the agency internal differing views program (differing professional opinion program and non-concurrence process) and Open Collaborative Working Environment initiative.

COMMITMENT:

The staff will complete a review of the enclosed Task Force report from the perspective of the SCCS results and analysis no later than 3 months following issuance of the OIG's final SCCS report. Based on insights derived from its review of the SCCS results, the staff will, if appropriate, suggest additional actions or modifications to the recommendations in the enclosed report. In addition, the staff will provide an update on its implementation of the Task Force recommendations.

RESOURCE:

For Fiscal Year (FY) 2010 Office of Enforcement (OE) included 1.0 full-time equivalent (FTE) staff position and \$500K in the FY 2010 budget shortfall request. For FY 2011 OE will request 1.0 FTE and \$1.0 million above their base budget submission.

COORDINATION:

The Office of the General Counsel reviewed this package and has no legal objection. The Office of the Chief Financial Officer has reviewed this Commission paper for resource implications and has no objections.

/RA Martin Virgilio for/

R.W. Borchardt
Executive Director
for Operations

Enclosure:
Internal Safety Culture Task Force Final Report



Internal Safety Culture Task Force

Final Report

April 2009

Internal Safety Culture Task Force Members



From left to right: front row—Renée Pedersen, June Cai, Mindy Landau, Laura Gerke, Tracy Walker, Patricia Hall; middle row—Lisamarie Jarriel, Molly Keefe, James Moorman, Isabelle Schoenfeld, Lisa-Anne Culp, Carolyn Faria; back row—Doug Coe, Barbara Williams, Cindy Bladey, Greg Werner, Ken O'Brien, Les Cupidon.



From left to right: front row—June Cai, Patricia Adelstein, David Diec, Sara McAndrew; back row—Richard Rough, Doug Coe, Amy Snyder.

Acknowledgements

The Internal Safety Culture Task Force would like to acknowledge the contributions of the following individuals:

- Cynthia Carpenter, Office of Enforcement—Senior Management Advisor
- Edwin Hackett, Office of the Advisory Committee on Reactor Safeguards—former Task Force Team Lead
- Eugene Cobey, Region I—former Task Force member
- John Madera, Region III (retired)—former Task Force member
- Laura Zaccari, Office of the General Counsel—former Task Force member
- Alex Murray—representative from National Treasury Employees' Union (NTEU)
- Amir Kouhestani (retired)—former representative from NTEU
- Lucia Lopez, Office of Enforcement—administrative support
- Nasreen Hasan, Office of Enforcement—administrative support
- Pete Hernandez, Office of Enforcement—logistics support
- Patricia Voss, Region III—logistics support
- Lauren Gibson, Office of Nuclear Regulatory Research—logistics support
- HGM Management and Technologies, Inc.—conduct of focus groups

Task Force members express their deep appreciation for the contributions of our colleague Giovanna (Jenny) Longo, who passed away before this report was issued.

Foreword

As leader of the Internal Safety Culture Task Force at the U.S. Nuclear Regulatory Commission (NRC), I would like to extend my personal and most sincere thank you to all members and former members of the Task Force for their exceptional efforts. Most especially, I would like to thank the Assistant Team Leader, June Cai, who worked so tirelessly and effectively to manage a myriad of logistical details, meticulously ensured the integrity of our data and our process, superbly edited the final report, and was a constant positive presence throughout this effort.

We individually brought to this task a valuable diversity of perspectives from every corner of the agency. We engaged each other in true dialogue, respecting each other's views and seeking to achieve a shared understanding of an exceedingly broad and complex topic. Evident in our dialogue was the principle behind author James Reason's belief that the safe control of complex hazardous technologies requires diverse perspectives from its human "controllers" (e.g., operators and regulators). As he points out, when diverse perspectives are shared freely, richly, and deeply, it becomes more likely that important information, connections, and insights will not be missed. Our work as a Task Force set a clear example of the value of maintaining an open and collaborative working environment that encourages a respectful dialogue of individual viewpoints, perspectives, and opinions. I strongly believe that, by living our NRC organizational value of Respect, we facilitate this necessary flow of information and that this has great relevance to the effectiveness of our agency's internal and external communications and the continuing achievement of our mission.

On behalf of the Task Force, I would also like to thank each and every NRC employee, supervisor, and manager, every benchmarked organization (both internal and external), and each member of the public who provided us with their comments and suggestions. Although we could not fully represent every one of these inputs in our report, we thoughtfully considered all of them, and they collectively provided valuable insights that added to our dialogue. This report represents another contribution to a widespread and longstanding "conversation" that has taken place since the NRC was created. The Task Force intended its contribution, in part, to help provide a more tangible framework and understandable vocabulary that would improve our ongoing dialogue on how to maintain a sound and effective internal safety culture. Over the past several months, the Task Force has engaged in thoughtful dialogue with many people over fundamental values, principles, and practices. I very much look forward to continuing that dialogue and know that it must never end.

Doug Coe
Internal Safety Culture Task Force
April 2009

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Executive Summary

The U.S. Nuclear Regulatory Commission (NRC) chartered the Internal Safety Culture Task Force in October 2008 in response to the Commission direction to “provide the Commission with a report outlining potential initiatives that could improve the agency’s internal safety culture.” This direction was related to the ongoing agency efforts to improve the oversight and assessment programs for addressing safety culture for licensees.

Drawing from the approach and terminology used by the NRC’s oversight of licensees in the safety culture area, the Task Force is proposing an integrated framework¹ to describe the NRC’s internal safety culture and to serve as the basis for continuing improvement. This framework consists of two parts: the “characteristics” of the agency’s internal safety culture, which are best described through a set of organizational functions important to a strong safety culture, and the “attitudes,” which equate to the agency’s expressed values and principles that underlie all activities. For consistency, the Task Force is proposing internal safety culture characteristics that are aligned with those being provided for Commission consideration for communicating the Commission’s safety culture expectations to all licensees and stakeholders, but tailored specifically for the agency’s internal context.

The Task Force conducted a series of data collection activities, including focus groups, interviews, internal and external benchmarking, and communications and outreach efforts, to form the basis of its recommendations. The collected data showed that, in general, employees strongly support the agency’s mission and feel pride in their work and that the agency has many existing processes and practices that support a healthy safety culture. In addition, from the data, the Task Force identified the following five high-level themes as areas on which the agency should continue or further increase focus in its effort to ensure a strong internal safety culture:

- 1) lack of clarity and confusion by some about what the agency means by internal safety culture
- 2) the importance of providing effective communications regarding expectations, feedback on performance, and bases for decisions
- 3) agencies and organizations with a focus on safety culture that were benchmarked had strong leaders who modeled safety culture behaviors
- 4) continuing concerns regarding the effectiveness of the agency’s differing views processes (e.g., Open Door Policy, Non-Concurrence Process, and Differing Professional Opinions Program)
- 5) the challenge in communicating and demonstrating the appropriate focus in meeting the potentially conflicting goals of production or timeliness and quality

In addition to these high-level themes, this report discusses notable insights from specific data collection activities. For example, the focus group results highlighted the need for improvements in some first-line supervisors with communication, performance management,

¹ Framework, as used in this report, means a frame of reference, or overarching guidance, that sets direction for the staff and that the staff can use to understand and discuss the importance of an internal safety culture at the NRC.

and people management skills; technical expertise in the areas they are managing; and more stable turnover rates. Other issues brought up by some of the focus groups included adequately capturing and transferring of knowledge from departing staff and outdated or inaccurate procedures and policies. From the benchmarking activities, both internal and external, this report identifies a number of similarities across organizations and groups.

Based on the results and insights collected, as well as the views and experiences of its members, the Task Force developed a set of recommendations for strengthening the NRC's internal safety culture. The recommendations, at a high level, are as follows:

- (1) The NRC's Strategic Plan should incorporate the Task Force's proposed internal safety culture framework and ensure there is alignment between it and the agency's mission, goals, objectives, vision, values, and principles. Further, elements of the framework should be integrated, where appropriate, into the agency's performance management tools, both at the organizational and individual levels, to reinforce expectations and hold employees accountable to the principles, values, and goals that constitute a strong safety culture.
- (2) The agency should develop training on internal safety culture principles and expectations to increase awareness and educate all employees. In addition, the agency should develop or emphasize training for employees at all levels to improve the interpersonal skills that are critical to supporting a strong safety culture.
- (3) The agency should assess the effectiveness of the current set of disconnected systems that comprise the agency's problem identification, evaluation, and resolution process to identify areas for improvement. Based on the results, the agency should develop activities, enhancements, or initiatives to address identified weaknesses and areas in need of improvement.
- (4) The agency should establish clear expectations and improved accountability for keeping its policies and procedures current and aligned and for maintaining their quality. These expectations would apply to procedures at the office or lower levels and supplement ongoing initiatives to update and maintain agency management directives.
- (5) The agency should establish a dedicated advisor (or organization) to lead and coordinate efforts to implement and maintain a framework for ensuring a strong internal safety culture. Regarding implementation of this recommendation in terms of the specific grade level and reporting relationship, the Task Force identified two approaches but did not reach agreement on which the Task Force, as a whole, would recommend.

Taken together, the recommendations address all the themes of concern identified from the data and aim to create effective and lasting improvements for supporting a strong safety culture for the agency. In addition to these recommendations, the Task Force suggests all offices review the list of internal good practices and insights developed from the external benchmarking efforts for supporting a strong safety culture to determine their applicability to each office. The Task Force also acknowledges a number of existing activities that support elements of a strong safety culture, such as the Knowledge Management efforts, the NRC Team Player initiative, and personnel health and safety activities.

Finally, as approved by the Commission in the Staff Requirements Memorandum to COMSECY-09-001, "Internal Safety Culture Task Force Interface with Office of the Inspector

General Safety Culture and Climate Survey,” dated February 6, 2009, the staff will review of the recommendations of this report relative to the results of the 2009 Office of the Inspector General’s Safety Culture and Climate Survey no later than 3 months following issuance of the final survey report. The staff will provide further recommendations or modifications to this Task Force report, as appropriate.

Introduction

The U.S. Nuclear Regulatory Commission (NRC) considers the safety culture of its licensees to be an important element in its mission to protect public health and safety. The “Proposed Internal Safety Culture Framework” section of this report contains discussion on the formal definition of safety culture that the agency has adopted and a statement proposed for the agency’s internal safety culture.

Following the Davis-Besse reactor vessel head degradation event in 2002, the agency enhanced the inspection and oversight program for reactor licensees to more fully address safety culture. Several other offices have initiated activities related to oversight of areas important to safety culture at licensee facilities, and a draft Commission policy statement on safety culture that would apply to all licensees and certificate holders is currently under development.

Complementary to this external focus on licensees’ safety culture, the NRC chartered the Internal Safety Culture Task Force (“Task Force”) in October 2008 in response to the Commission direction in its staff requirements memorandum (SRM) M080317B, “Staff Requirements—Briefing on State of NRC Technical Programs,” dated April 3, 2008, to “provide the Commission with a report outlining potential initiatives that could improve the agency’s internal safety culture” (see Appendix A). In the SRM, the Commission directed the staff to provide the report within 3 months of the next Office of the Inspector General (OIG) Safety Culture and Climate Survey.

Background

Objectives

The objectives of the Task Force are to provide the Commission with potential initiatives to increase awareness of and improve the agency’s internal safety culture and to identify best practices currently used across the agency.

Interface with the OIG Safety Culture and Climate Survey

The Task Force’s efforts are independent of OIG’s triennial Safety Culture and Climate Survey but provide a complementary means to identify improvements. The OIG’s survey is a safety culture assessment method that takes a “snapshot” of employee perceptions approximately every 3 years to identify both what is going well and what areas need improvement. The survey derives information from the NRC workforce on its attitudes, perceptions, and beliefs about the work environment at the agency. The Task Force did not conduct a survey or a full safety culture assessment. The Task Force’s approach was to understand what programs and processes currently exist in the agency that support a strong safety culture and determine opportunities for improvement. The Task Force accomplished this by considering views from all levels of staff and management and by collecting information both internally and at external organizations that have important safety objectives. Given its agencywide scope, the Task Force also sought to establish an overarching framework to maintain an ongoing emphasis on the internal safety culture.

In January 2009, the OIG announced that its next survey would be conducted in May 2009, with results available to the staff in July or August 2009, and a final report issued by early fall 2009. In support of a scheduled May 2009 Commission meeting on this topic, the Task Force requested an alternative approach to accomplishing the Commission's SRM direction. In the SRM to COMSECY-09-0001, "Internal Safety Culture Task Force Interface with Office of the Inspector General Safety Culture and Climate Survey," dated February 6, 2009 (see Appendix A), the Commission approved the staff's approach to complete the Task Force report with recommendations to the Commission in April 2009 and to complete a review of the survey results for possible influences on those recommendations no later than 3 months following issuance of the OIG's final survey report. The staff would provide this review to the Commission and, as appropriate, recommend further actions or modifications to its earlier actions, based on insights derived from the survey results.

Historical Perspective on NRC Internal Safety Culture

As noted by NRC Historian J. Samuel Walker in NUREG/BR-0175, "A Short History of Nuclear Regulation, 1946–1990," issued January 2000, the NRC became an independent regulatory agency through an Act of Congress in 1974 amidst a series of controversies and public debate over its predecessor Atomic Energy Commission's dual responsibilities for developing and regulating nuclear technologies. The NRC's mission was defined broadly (i.e., "...public health and safety, and common defense and security..."), and therefore it is not surprising that many different views have existed, and will continue to exist, both in the public realm and within the agency itself, on how the agency should achieve its mission.

In examining the broad question of how the agency should further improve its internal safety culture, the Task Force considered, at a high level, not only how the agency has incorporated safety culture into its regulatory oversight responsibilities, but also the nature and evolution of the historical internal "conversation" on this topic within the agency. Appendix B provides a sampling of documents related to this conversation. This list is not exhaustive, and there are likely many other fitting examples that are not included. Unlike the more publicly visible initiatives related to safety culture in the NRC's oversight of licensee activities, the internal conversations may have been less visible, but they have still been long standing. This brief historical summary demonstrates that, although the agency's vocabulary has evolved to include "safety culture," the goal has always been to decide how to best accomplish the mission through a clearly defined set of objectives and use of effective processes and programs to implement appropriate priorities.

In addition to the OIG employee surveys of safety culture and climate (see previous section), the agency has addressed safety culture improvements more directly in recent years, as its organizational improvement initiatives have evolved. Some of the most notable of these were the agency's response to the Davis-Besse reactor vessel head degradation event, including an initiative to improve the long-term effectiveness of corrective actions. Therefore, the latter portion of the historical timeline shows an increasing number of references to these types of initiatives. In making its recommendations, the Task Force aimed to not simply repeat past recommendations but to build on them to instill an ongoing emphasis on maintaining and improving the agency's internal safety culture.

With the unprecedented recent growth and addition of new employees to the agency, the Task Force believes that it is important to ensure all employees recognize that they are a key part of an evolutionary effort to continuously improve the way the agency achieves its mission. As evidenced by this sampling of history, the external environment, the technologies the agency

regulates, and the tools used by agency staff continue to change. Therefore, the agency must adapt to continue achieving its mission. As the NRC's Executive Director for Operations (EDO) noted in 1991², this applies not only to the technical staff, but to the corporate support (i.e., legal, financial, information technology) and administrative staff, as well.

The Task Force hopes that the historical summary in Appendix B will refresh the agency's awareness of both the wide diversity of views on improving internal operations and safety culture and the great importance of continuing this conversation.

Context of the Results and Recommendations

The Task Force was composed of members across all organizational levels (e.g., from participants in the Nuclear Safety Professional Development Program to Senior Level System (SLS) employees) and functions (e.g., technical and inspection offices, corporate support, and administrative staff). This diversity facilitated the sharing of many thoughtful perspectives in dialogues throughout the process. In addition to collecting a range of data, which is discussed later in this report, the Task Force members drew upon their own diverse experiences and knowledge in formulating the recommendations.

In addition, it is important to reiterate that the Task Force did not conduct a full safety culture assessment, where the overall health of the organization, including all the strengths and weaknesses, is systematically and thoroughly evaluated and the results reported. The Task Force primarily focused on identifying areas for enhancement to strengthen the agency's internal safety culture.

Note on Terminology

In this report, several terms relating to NRC individuals are used, including "employees," "staff," "first-line supervisors," and "management." These terms are used as consistently as possible throughout the report, although there may be a few references where clear distinctions are not possible (e.g., where data are presented in the aggregate). The term "staff" is used to describe individuals in nonsupervisory positions. The term "first-line supervisors" is intended to include individuals at the team leader and branch chief level. "Management" is used to encompass levels of management starting with those above the first-line supervisor level up through senior agency management. When the intent is to include individuals from all levels (from staff to senior management), the term "employees" is used.

Proposed Internal Safety Culture Framework

What Is Safety Culture?

In 2006, the NRC worked extensively with a range of external stakeholders to enhance the inspection and oversight program of reactor licensees to more fully address safety culture. In defining safety culture and identifying components important to safety culture that apply to the inspection and oversight program, the NRC considered and incorporated stakeholder input, where appropriate. At that time, the NRC adopted, for application to reactor licensees, the International Atomic Energy Agency (IAEA) International Nuclear Safety Advisory Group

² This is referenced from "NRC Technical Staff Performance Expectations," dated September 17, 1991. An excerpt of this document is included in Appendix B.

(INSAG) definition of safety culture³, which it referenced several years earlier in other applications.

In general, all definitions of safety culture express organizational characteristics (e.g., programs and processes that are more readily observable) and attitudes (also called beliefs, norms, and shared understandings). Employee attitudes and behaviors combine with processes within an organization to ensure a safety-first focus. To some degree, all these definitions include the concept that attitudes are shared by the organization as a whole and by its employees as individuals. Safety culture is driven by the values its employees use when deciding what is important.

From the outset, the Task Force struggled with the concept of creating a more usable statement to describe the agency's *internal* safety culture. The Task Force found that the INSAG definition serves well as a generic definition for the term "safety culture" but that the definition did not speak to everyone in the agency's internal audience. This was reinforced throughout the Task Force's interactions with employees during the collection of data. Because the Task Force found that the concept of internal safety culture was not clearly articulated and therefore not consistently understood, it started with, as a working definition, an expanded, "customized" version of the INSAG definition⁴. In evaluating and developing a potential definition, the Task Force gave significant thought to including all employees, without regard to their specific functions (e.g., serving in the security versus safety area, or performing administrative and corporate support functions versus nuclear-related technical activities). The Task Force recognized the importance of every employee's contribution in supporting the agency's mission and a strong internal safety culture. From the initial working definition, and based on insights from its various activities, the Task Force then developed and reached agreement on the following statement of the agency's internal safety culture.

Internal Safety Culture Statement

The NRC's Safety Culture is comprised of the *characteristics* of our programs and *attitudes* shared by all NRC employees that ensure the agency's mission is always at the forefront of all work activities.

This statement can be considered to be interpretive of the INSAG definition for the NRC's environment and serves as an internal aspirational target.

Current Framework

The Task Force reviewed how the current agency planning and performance management framework relates to safety culture. The goal was to understand how the NRC currently addresses and communicates about internal safety culture. The Task Force found that the agency does not have an overarching framework for defining and applying the concepts of internal safety culture or a related standard set of communications. Although elements of safety culture are addressed by various means in many areas and safety culture expectations are

³ Safety culture is "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" (Safety Series No. 75-INSAG-4, "Safety Culture," February 1991).

⁴ The Task Force started with a working definition that added this second sentence to the INSAG definition: "This is internalized and modeled by NRC individuals, at all organizational levels, through their work activities in support of the agency's mission and guided by the agency's values."

often communicated by agency leaders, there has not been a formal, defined, and consistent framework for communicating and implementing the agency's expectations for internal safety culture. This section will provide an overview of the current NRC goal and accountability framework, which contains many elements related to safety culture, and will then present the Task Force's recommended framework for characterizing internal safety culture and applying its concepts.

About the NRC

All organizations use a combination of concrete and abstract tools in their self-definition strategy and to promote a shared understanding of their purpose and mission. The NRC's mission is focused on safety and security, and the mission is tied to all of the NRC's work activities through its Strategic Plan. Under the section "About NRC" on its Web site, the NRC provides information on the following topics:

- summary of its statutory authority
- history overview
- budget and performance expectations
- definition of organization and functions
- identity with regard to locations
- Strategic Plan—purpose and mission
- values—attitudes to support the mission

"Statutory authority" and "history" provide the genesis of the agency and where it has been; "budget and performance," "organization and functions," and "locations" provide a snapshot of the history and current state of the agency; and "Strategic Plan" and "values" project the direction in which the agency is heading and how it intends to get there. An organization's safety culture can be connected to its past, its current position, and its intended goals for the future. The Task Force believes the most appropriate tools for articulating the agency's goals for a strong internal safety culture would be found in the forward-looking Strategic Plan and in the agency's aspirational expressions, such as the NRC's values and principles.

Strategic Plan

In the introduction to the Fiscal Year (FY) 2008–2013 Strategic Plan, the NRC sets forth three items as "Key Elements":

- a stand-alone mission statement:

License and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.
- a values statement that, among other values, embraces the NRC's stand-alone "Principles of Good Regulation":

The safe use of radioactive materials and nuclear fuels for beneficial civilian purposes is enabled by the agency's adherence to the principles of good regulation—*independence, openness,*

efficiency, clarity, and reliability. In addition, regulatory actions are effective, realistic, and timely.

- two Strategic Goals⁵:

Safety: Ensure adequate protection of public health and safety and the environment.

Security: Ensure adequate protection in the secure use and management of radioactive materials.

The Strategic Plan also sets forth the following three “Organizational Excellence Objectives”:

- *Openness*: The NRC appropriately informs and involves stakeholders in the regulatory process.
- *Effectiveness*: NRC actions are high quality, efficient, timely, and realistic, to enable the safe and beneficial use of radioactive materials.
- *Operational Excellence*: NRC operations use effective business methods and solutions to achieve excellence in accomplishing the agency’s mission.

NRC Values

The NRC Values Web page lists three distinct items:

- the five principles of good regulation (independence, openness, efficiency, clarity, and reliability)
- a set of seven stand-alone organizational values:

Integrity ... in our working relationships, practices, and decisions.

Excellence ... both in our individual and collective actions.

Service ... to the public, and others who are affected by our work.

Respect ... for individuals' roles, diversity, and viewpoints.

Cooperation ... in the planning, management, and work of the agency.

Commitment ... to protecting the public health and safety.

Openness ... in communications and decisionmaking.

- an open, collaborative working environment (OCWE) that encourages all employees and contractors to promptly voice differing views without fear of retaliation

⁵ Strategic Goals can change from plan to plan as directed by the Commission. The previous FY 2004–2009 Strategic Plan had the following five goals: safety, security, openness, effectiveness, and management.

To facilitate an OCWE at the NRC, the agency has several mechanisms for expressing differing views and having them heard by decisionmakers, including an Open Door Policy, a Non-Concurrence Process, and a Differing Professional Opinions (DPO) Program.

Interface Between the Strategic Plan and NRC Values

The NRC's Strategic Plan incorporates, albeit inconsistently, the items from the NRC's Values Web page. For example, the principles of good regulation appear in a separate Strategic Plan "Values Statement." The concept of an OCWE is discussed only as a means to support the NRC's safety strategies and is not given any higher or broader level of treatment. From the list of the seven NRC organizational values, the current plan highlights "Openness," "Effectiveness," and "Operational Excellence," as Organizational Excellence Objectives, but it makes no specific mention of other listed values such as "Respect" and "Integrity."

Figure 1 graphically shows the NRC's guiding principles (i.e., major elements of the NRC's Strategic Plan and other official elements that express the NRC's intentions and expectations).

NRC Guiding Principles

**Strategic Plan
Fiscal Years 2008–2013**

- NRC Mission Statement
- NRC Values statement (includes five Principles of Good Regulation ¹)
- Safety Goal
- Security Goal
- Effectiveness, Excellence and Openness Strategies

U.S. NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

1 Independence, Openness, Efficiency, Clarity, and Reliability

2 In Strategic Plan *only* under the Openness Strategy



Figure 1

Proposed Framework for the Agency's Internal Safety Culture

The formal INSAG definition and the Task Force's Internal Safety Culture statement both describe safety culture as being comprised of characteristics and attitudes. The "characteristics" of the agency's internal safety culture are best described through a set of descriptions of organizational functions important to a strong safety culture, referred to as "safety culture characteristics." The "attitudes" portion equates to the agency's expressed values and principles that underlie all activities. For consistency, the Task Force is using, as part of its internal safety culture framework, safety culture characteristics that are aligned with those being provided for Commission consideration for communicating the Commission's expectations for safety culture to all licensees and stakeholders.

As part of the Reactor Oversight Process (ROP), the NRC originally developed and adopted a set of 13 safety culture components in 2006, which are included in the Appendix to Regulatory Information Summary (RIS) 2006-13, "Information on the Changes Made to the Reactor Oversight Process to More Fully Address Safety Culture," dated July 31, 2006. The original set was developed through a review of various sources of information, including documents from the Institute of Nuclear Power Operations and the IAEA and with extensive stakeholder involvement. During development of a draft agency policy statement on safety culture for application to all licensees and certificate holders, the NRC revised the original set of components and renamed it "characteristics." The revisions were made based on experience gained during the initial implementation period of the ROP revisions, with consideration of internal and external feedback, to improve the overall structure and organization, and to more fully incorporate security.

The Task Force based its proposed set of internal safety culture characteristics on these revised characteristics, to be consistent with what the staff has proposed as the Commission's expectations of safety culture in the draft policy statement. The Task Force believes that there is great value in the NRC using the same standards for internal safety culture as it communicates to the broader licensee community and potentially could be used to enhance the effectiveness of licensee oversight programs. Maintaining such consistency is intended to help improve both public and internal confidence in agency operations. Moreover, they appear to be comprehensive and useful for internal safety culture, based on their success in providing the basis for the focus group and benchmarking questions. Because the draft policy statement is still in the development phase, the set of characteristics could potentially change before it is approved by the Commission and finalized. If there are changes to the final set, the Task Force recommends continued alignment and consistency between the safety culture characteristics used internally and externally for licensees.

The nine internal safety culture characteristics are not prioritized. All characteristics are granted equal weight but can be grouped by shared concepts: the first three relate to problem identification, evaluation, and resolution; the next three focus on the individual contributor level; and the last three focus on organizational-level contributors. The concepts covered by the characteristics are often related and may overlap; they are not mutually exclusive. The Task Force defined the safety culture characteristics as expectations for a strong safety culture as opposed to truisms and believes that they can be used as a way to determine the health of the internal safety culture (e.g., through performance management and monitoring processes) and to identify and implement improvements (e.g., used as a basis for conducting self-assessment and improvement activities).

Proposed Safety Culture Characteristics for Internal Safety Culture

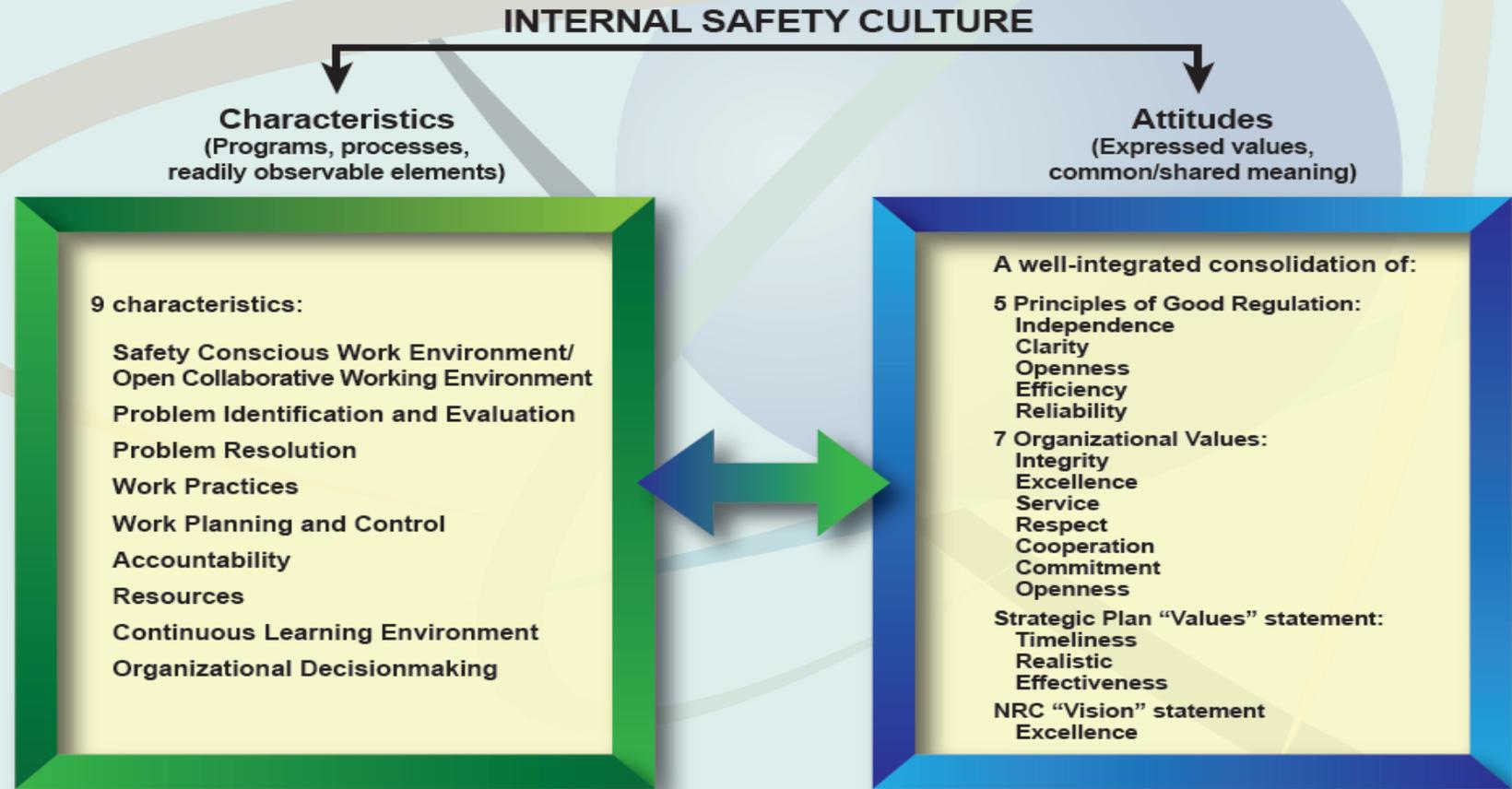
- Safety-Conscious Work Environment/Open Collaborative Working Environment—NRC management maintains a safety-conscious work environment/open collaborative working environment⁶ in which all employees feel free to raise concerns without fear of retaliation.
- Problem Identification and Evaluation—the NRC ensures that issues potentially impacting safety or security are promptly identified and fully evaluated, commensurate with their significance.
- Problem Resolution—the NRC ensures that actions are taken to correct safety and security issues in a timely manner, commensurate with their significance.
- Work Practices—NRC employees demonstrate ownership for the safety and security strategic goals and strive to meet high standards in their day-to-day work activities.
- Work Planning and Control—the NRC processes for planning and controlling work ensure that individuals, supervisors, and work groups communicate, coordinate, and execute their work activities in a manner that supports safety and security.
- Accountability—the NRC ensures that roles, responsibilities, and authorities in support of the strategic goals of safety and security are clearly defined and reinforced.
- Resources—the NRC ensures that personnel, equipment, procedures, and other resources are available and adequate to ensure the strategic goals of safety and security.
- Continuous Learning Environment—the NRC maintains a continuous learning environment in which opportunities to improve activities related to the strategic goals of safety and security are sought out and implemented.
- Organizational Decisionmaking—significant organizational decisions at the NRC are made in a manner that supports the strategic goals of safety and security.

To illustrate how these concepts apply internally to the agency, the Task Force has developed examples (called “aspects”) to describe how the agency could demonstrate support for each characteristic (Appendix C contains the complete list). These aspects reflect comments and feedback gathered from NRC employees through interviews and focus groups, and they incorporate the agency’s organizational values.

Figure 2 depicts the Task Force’s proposed framework for internal safety culture.

⁶ For licensees, the NRC has traditionally used the term “safety-conscious work environment.” Internally, the NRC has expanded this concept to include an “open, collaborative working environment” to be meaningful to every NRC employee. The NRC also includes a clause in cost-reimbursement solicitations and contracts for professional services that provides a procedure for the expression and resolution of DPOs of health and safety concerns related to the contract.

Recommended Internal Safety Culture “Framework”



This “framework” is intended to be inclusive of every NRC employee, organization, and function.

Figure 2

Data Collection and Outreach Activities

Methodology

To obtain an accurate and comprehensive understanding of the current programs and processes that support a safety culture and the potential opportunities for improvement, the Task Force conducted a series of data-gathering activities to obtain views from all levels of staff and management within the agency as well as from outside organizations. These activities were organized into three areas: (1) focus groups and interviews, (2) benchmarking, and (3) communications and outreach. The sections below describe the general approach for each activity, followed by a summary of the themes identified from all the activities.

Focus groups and management interviews

With assistance from a contractor (HGM Management and Technologies, Inc.), the Task Force conducted focus groups in the fall of 2008 with a representative sample of staff and first-line supervisors. The composition of the focus groups was designed to ensure representation across several key variables, including discipline, grade level, and tenure with the agency. For each group, individuals meeting the targeted variables were selected randomly and extended invitations for voluntary participation. The combination of using a representative sample and selecting the participants randomly provided support for the validity and reliability of the data and decreased the risk that systemic biases would influence the results. In total, 20 focus groups were conducted with approximately 153 individuals representing headquarters, all the regional offices, and the Technical Training Center. For additional information on the conduct of the groups, refer to the contractor report in Appendix D.

The focus group questions were designed and organized around the proposed safety culture characteristics. Using a similar set of questions, the Task Force also conducted individual interviews with managers across most offices to gain an understanding of their perspectives. The sampling of management was principally done at the division level but also included other levels, from first-line supervisors through office directors and regional administrators. Appendix F summarizes the results from the management interviews.

Benchmarking

The Task Force conducted benchmarking activities to gather information about practices, programs, and processes that could be considered for candidate good practices. The Task Force used the proposed safety culture characteristics to design the questions and organize the information collected. The Task Force benchmarked seven external organizations, both private organizations and other government agencies, that have a similar organizational focus towards safety. The Task Force asked their representatives a series of questions to understand each organization's views and treatment of safety and collected information on programs and practices that support their internal safety culture. Appendix E lists participating organizations and the questions they were asked. Some Task Force members also offered insights from their personal knowledge and awareness of practices from other external organizations, and these were considered in conjunction with the data collected.

Internally, the Task Force engaged with a majority of the agency's offices to identify existing programs, processes, and practices that provide support for each of the proposed safety culture characteristics and other general relevant activities, as appropriate. Because the offices differed in terms of size, complexity, and function, there were varied levels of applicability of the

characteristics across offices. The internal benchmarking focused on office-level practices that could be candidates for broader application within the agency. Appendix H contains the results of the internal benchmarking process.

Communications and Outreach

The Task Force conducted a range of communications and outreach activities to solicit insights, both internally and from external stakeholders, on how the NRC can improve its safety culture. The Task Force held a public meeting on December 4, 2008, and invited a set of external panelists to share insights on the topic of internal safety culture. The NRC also provided an opportunity for comment during the meeting to attendees who participated in person or through Webinar (a new Internet meeting technology the agency is testing). Appendix I includes the panelists' presentations from this public meeting.

Internally, the Task Force set up a Web site that provided information about its activities and a way for NRC employees to submit comments (anonymously, if desired) and to provide suggestions for improvement. To publicize its activities and the Web site, the Task Force used communications tools such as newsletters and management updates and distributed notepads with the Web site link. In addition, many Task Force members conducted presentations and outreach at various staff meetings, such as office and division meetings. In all the communications efforts, the Task Force encouraged individuals to contact any of its members to provide input. Discussions were also held with specific groups, such as participants in the Nuclear Safety Professional Development Program and first-line supervisors, to collect insights from their unique perspectives. Several members of the Task Force also conducted interviews with employees who had actively participated in either the DPO or Non-Concurrence Program to identify opportunities for improvement.

Because of the volume of information collected, the Task Force reviewed and considered all inputs in the aggregate and was not able to provide individual responses to submitters. Appendix G includes a summary of the staff inputs collected by the Task Force.

Review and Analysis

The Task Force compiled and analyzed the information and insights gathered from all the activities described above in the aggregate. All Task Force members received information packages containing the raw data, as well as summary tables of the different types of inputs, in advance of a Task Force meeting on February 17–20, 2009, where these materials were discussed. The Task Force collaboratively examined the data and summary information to identify overall themes and trends. From this information, and drawing upon insights from the members' own experiences and expertise, the Task Force identified and developed its overall set of recommendations.

Results and Insights

From the data gathered internally, the Task Force identified that all employees, from the staff through management levels, exhibited a continuing strong sense of support for the NRC mission and pride in their work. This echoes one of the most consistent positive results from past OIG surveys and other agencywide surveys. In general, employees, including those who do not work directly in technical roles, feel very connected to the agency's public health and safety mission and are proud of their personal contributions.

Although the agency is doing well in many areas to foster an organizational culture that supports achieving its mission, the focus of the Task Force was to identify areas for enhancement, and therefore it conducted the data collection and analysis activities in a manner that supported that approach. Based on its review of all the data, the Task Force identified several high-level themes as areas where the agency should continue or further increase its focus. Most of the themes (1, 2, 4, and 5) were developed based on converging supporting information from across multiple data sources. Theme 3 rose out of the strong, consistent insights observed by Task Force members during external benchmarking activities. In addition to these high-level themes, additional observations and trends were noted from specific data-collection activities, and these are described after the discussion on the general themes.

General Themes

Theme 1—In general, the inputs from staff revealed lack of clarity and some confusion about what the agency means by the concept of safety culture. There was no broad, consistent level of understanding about how individuals fit into the agency's safety culture, why safety culture is important, or the agency's expectations for safety culture. During the focus groups, staff with technical responsibilities were most aware of the concept of safety culture (although knowledge levels varied), but most nontechnical staff were not certain what the term meant or if safety culture even applied to them. Several of the Task Group members who co-moderated the groups noted that some of these focus group participants seemed to improve their understanding of safety culture and their connection to the agency's internal safety culture towards the end of the sessions, after the discussions on concepts related to internal safety culture. A number of employee inputs received by the Task Force were related to personnel safety and work environment conditions, further illustrating the confusion that can exist on the concept of safety culture. Results from management interviews generally demonstrated an understanding of safety culture and what supports a strong internal safety culture.

Theme 2—This theme centers on the importance of communications, in a variety of formats. First, input from staff indicated they strongly want consistent and timely feedback from their supervisors and managers on their personal performance and information on the results and contribution of their efforts. During several focus groups, many participants discussed not receiving regular feedback from supervisors and managers about events and factors that affect their work, including schedules and work plans. In addition, internal input collected from all employee levels supported the need for providing clearer expectations. Staff want to understand the expectations and standards for their performance in their current work environment. For example, they would like a clear understanding about the standards against which their work products will be evaluated and whether their products meet those standards. Some of the input indicated that staff sometimes do not feel they are receiving clear feedback about work quality from supervisors and managers. In addition, the staff want to understand the bases of decisions, particularly where they have expressed differing views during the

decisionmaking process. If they offered such views, they would like feedback to understand if and how their views were considered.

Results from management interviews indicate that management understands the importance of effective communications, but that many competing demands on their time can create challenges in making such behaviors a standard part of the feedback and decisionmaking processes on a day-to-day basis.

Theme 3—During the external benchmarking process, agencies and organizations that had focus on safety culture described having strong leaders throughout the organization who modeled safety culture behaviors and were engaged and present. In addition, their organizational systems, processes, and goals were aligned with the organization's safety culture principles. Those organizations that were in the process of establishing an internal safety culture framework or program, or were strengthening existing processes or programs, explained that the effort needed to start from the top and emphasized the importance of educating executive leadership about safety culture to achieve alignment and ownership. Furthermore, a number of the benchmarked organizations had specific positions with close reporting relationships to the leadership that focused on their internal safety culture (e.g., monitoring the health of the safety culture in the organization, conducting assessment activities, and overseeing improvement initiatives).

Theme 4—Several of the focus groups and general employee inputs questioned the effectiveness of the agency's differing views processes (e.g., Open Door Policy, Non-Concurrence Process, and DPO Program). The data indicated continuing perceptions that engaging in these processes may lead to some form of adverse consequences in the workplace (e.g., being excluded or viewed negatively), even though the managers interviewed stated continued support for using those processes. For example, while about half of the focus groups indicated they felt willing to speak their minds and that management handled differing opinions well, some participants in approximately half of the groups also noted feeling some reluctance to raise concerns due to fear of a negative work environment. Therefore, there appeared to be some mixed opinions from the focus groups regarding a willingness to raise concerns. In general, the input from staff indicated the desire to understand the basis for outcomes of issues entered into these systems, to understand the processes, and to facilitate the acceptance of these programs as part of agency practice.

The data collected from interviews with employees who had actively participated in either the DPO or Non-Concurrence Program, and from some of the Web site inputs, provided further examples to illustrate the issues in this area. For instance, several staff questioned the effectiveness of the Open Door Policy because, in their view, it was seen as bypassing management and jumping the management chain. In addition, several staff who had engaged in the DPO program or Non-Concurrence Process stated that they experienced negative consequences for using those processes (e.g., negatively affecting performance ratings, being marginalized both by supervisors and peers, and having tasks or jobs reassigned). Several staff with first-hand knowledge of the DPO process or Non-Concurrence Program expressed concerns about not having all their concerns or the exact nature of those concerns responded to, the likelihood of predetermined outcomes, the lack of management accountability to complete commitments made during these processes, and the excessive amount of resources required to implement the processes.

Theme 5—The challenge in communicating and demonstrating the appropriate focus in meeting the potentially conflicting goals of production or timeliness and quality appeared as a common

theme from the focus group results and was supported by insights from management interviews and some employee inputs. The focus group results indicated there was a perception among some participants that the agency may be too “metrics” oriented, versus “quality-driven,” in the production of deliverable work products. Employee inputs included the view that mixed messages regarding the agency’s regulatory role can be conveyed if production goals are emphasized and if industry groups are perceived to influence the Commission. Another employee view was that the agency’s role was not to issue licenses but to conduct safety reviews. Insights from management interviews included agreement on the potential for sending mixed messages in this area and recognition of the need to establish clear quality expectations.

Regarding accountability for safety through the current performance appraisal process, some managers interviewed noted that “safety” is not always included as a specific element in staff performance standards. Because there are many judgment factors that must be considered in prioritizing work, safety or quality considerations may not always need to be the main driving force, depending on the circumstances involved. The views from staff in this area, as provided by some focus group participants, were perceptions that the current performance management system is subjective, may be “quota-like,” and should be reviewed for improvements.

In addition to these general themes, notable insights from specific collection activities are discussed below.

Focus Groups

Overall, participants from across all the focus groups expressed a sense of pride in their work and their contributions to the agency. However, some of the focus group data did highlight some areas of concern. For example, one area was related to first-line supervisors, including the need for improvements in communication, performance management, and people management skills; technical expertise in the areas they are managing; and in stabilizing turnover rates. Another theme from the focus groups was concern about adequately capturing and transferring knowledge from departing staff. There were also a number of concerns related to the agency’s policies and procedures being outdated or inaccurate. The contractor’s report in Appendix D contains more detailed information on the results.

External Benchmarking and Public Outreach

Almost all the external organizations benchmarked by the Task Force were undertaking activities in the safety culture area and were at different stages in the process. Some were in the design or implementation stage of a safety culture program or system, while others were focused on sustaining existing programs and activities. The Task Force noted that several of the organizations began their safety culture initiatives after their organization or industry experienced an accident. Many of the organizations provided specific training on safety culture, particularly for new employees, to introduce them to their expectations and values related to safety culture. Most had programs for employees to report concerns (e.g., ombudsman, hotlines, and differing opinion programs).

The Task Force noted that many of the organizations examined during the external benchmarking activity shared the following similarities related to supporting a strong safety culture:

- Establish and communicate the organization’s basic tenets (e.g., philosophy, values, principles), to indicate what is important to the organization.

- Create a visible presence of communicating and demonstrating safety culture at the top of the organization. Start with leadership and drive strong safety culture principles down through processes and behaviors.
- Develop a framework that sets the standards for an organization's safety culture. Use it to measure the health of the safety culture and the effectiveness of associated programs. Align individual performance goals and accountability standards with safety goals and organization values.
- Develop and use effective assessment tools, such organizational surveys and metrics, to monitor the health of the safety culture.
- Empower the front line staff and encourage ownership at the individual level.
- Be aware and acknowledge that integrating safety culture throughout the organization can be challenging and requires a consistent long-term focus and effort by all employees.

The panelist presentations from the December 4, 2008, public meeting generally supported many of the themes and characterizations from the external benchmarking activity.

Appendix E contains a list of the benchmarked organizations, while Appendix I contains presentation materials from the public meeting.

Internal Benchmarking

The good practices collected by the Task Force in benchmarking internally within the agency demonstrated that support for many of the characteristics of safety culture already exist and are integrated into the daily work processes of offices. However, they have not necessarily been characterized or described explicitly as safety culture practices. The Task Force took a broad approach of collecting a wide variety of information for inclusion in the listings. The following are some themes identified from the data:

- (1) Most of the practices identified focused on the areas of information sharing, accountability, and training.
- (2) Many of the practices were aimed at keeping staff informed, which is critical for supporting a strong safety culture, as discussed under Theme 2. A number of offices described conducting various meetings, both formal and informal, to facilitate information sharing and ongoing discussions.
- (3) Several of the offices linked specific elements of their operating plans to performance expectations for staff and provided periodic reinforcements of these expectations in formal and informal settings.
- (4) Among the many examples of training programs and opportunities were knowledge transfer activities, conferences and retreats, and formal training courses.

- (5) Many offices use electronic tracking mechanisms to ensure the proper flow and management of work processes and to support work prioritization and planning, as well as systems for identifying and tracking problems.
- (6) Most offices specifically strive to encourage an informal sharing of concerns and differing views and the use of the agency's differing views programs, when appropriate.

For more detailed information on these practices, refer to Appendix H.

Task Force Recommendations

The data collected by the Task Force indicate that efforts related to supporting a strong internal safety culture have been ongoing throughout the agency and that there are areas where the agency is doing well. However, since the Task Force focused on identifying areas for improvement, it developed the following set of recommendations to further strengthen important elements of the agency's internal safety culture. By their nature, these recommendations are interrelated, share elements in their goals and objectives, and provide support for and build upon each other. Therefore, to achieve the most effective and lasting results, the Task Force suggests that these recommendations be considered as a set and that their implementation be well coordinated.

The importance of establishing a framework to express the agency's internal safety culture and then frequently communicating the expectations cannot be overstated. For example, the data indicates that many employees do not understand the concept of safety culture and are not clear on how it applies to them, if at all. Therefore, as the agency moves to enhance efforts to improve its internal safety culture, communication must be consistently conveyed from many sources and in a variety of formats to reinforce the concept that the NRC is a "safety-first" organization. The focus on safety culture must be demonstrated and emphasized by the top levels of the organization, as shown by insights collected from the Task Force's external benchmarking.

Strengthening a common understanding of safety culture expectations requires a constant effort and should ultimately be woven into the characteristics of agency programs and the attitudes and behaviors of the workforce. Employees will need to see tangible results from this initiative so that the agency can demonstrate its commitment to continuous improvement in its internal safety culture. By communicating regularly to educate and inform employees, the NRC can create a lasting emphasis on maintaining a strong internal safety culture.

Recommendation 1:

The NRC's Strategic Plan should incorporate the Task Force's proposed internal safety culture framework and ensure there is alignment between it and the agency's mission, goals, objectives, vision, values, and principles. Further, elements of the framework should be integrated, where appropriate, into the agency's performance management tools, both at the organizational and individual levels, to reinforce expectations and hold employees accountable to the principles, values, and goals that constitute a strong safety culture.

The Task Force believes that this initiative would set the foundation for defining and conveying the agency's internal safety culture framework and expectations. Under this proposal, the

framework for internal safety culture would emanate directly from the Strategic Plan and then cascade down to agency accountability and performance management tools.

The Task Force believes its proposed framework for internal safety culture should be integrated into the Commission's Strategic Plan because the Plan sets the tone and direction for all NRC activities. This would clearly communicate the message that safety is an overriding priority at the NRC. The Task Force also views this as an opportunity to align the various "guiding principles" used by the agency in the Strategic Plan, including the mission statement, vision, goals, objectives, organizational values, and principles of good regulation. These concepts, while worthy and necessary, did not appear to the Task Force to be well integrated. The next update of the Strategic Plan would present a fitting opportunity to clearly and coherently integrate the above guiding principles and incorporate them into an internal safety culture framework.

Management can establish expectations and influence behaviors by using performance management tools, such as operating plans, performance metrics, Senior Executive Service performance plans, employees' performance elements and standards, and self-assessments, that connect, as appropriate, to the safety culture framework. This effort can be linked to current, ongoing efforts to create consistent agencywide performance measures and other initiatives taken under the Performance Improvement Officer activities. If the proposed framework is accepted as what is important to fostering a strong internal safety culture, then the agency should monitor the observable and measureable elements of this framework as part of its systems for performance accountability and internal controls. This is intended to ensure that expectations being communicated on internal safety culture would be clearly translated into how individuals are held accountable.

This recommendation supports the characteristic of accountability and should increase awareness, understanding, and demonstration of internal safety culture concepts and expectations. Although the Task Force is not making specific recommendations regarding implementation details, Appendix J contains examples to illustrate some potential approaches for carrying out this recommendation.

Recommendation Basis

As described in Theme 1, the Task Force identified varied levels of understanding and some confusion from some staff surrounding the concept of safety culture. Providing a clear framework for internal safety culture would set the foundation for communicating and clarifying the agency's expectations for all employees. This should particularly help address the inclusion of employees in nontechnical roles by making the agency attitudes and characteristics clear and tangible for all employees. Several of the external organizations benchmarked by the Task Force established a clear framework for safety culture and used it as a basis for communications and related activities.

Adopting specific safety culture characteristics into performance management tools would drive the agency to improve how it conveys the relationship between the goal of quality versus that of production and timeliness, as discussed in Theme 5. Adopting this recommendation would allow the agency to communicate, clarify, and reinforce its safety-first focus. This recommendation also addresses the desire of staff to have clearer expectations and more accurate feedback on their performance, as noted in Theme 2. Linking employees' goals and performance elements to safety goals was a good practice observed at several benchmarked external organizations, as discussed under Theme 3. Finally, this recommendation would

provide support for Recommendation 4, which discusses how management can demonstrate commitment to quality by maintaining policies and procedures current and better aligning them at all levels.

Recommendation 2:

The agency should develop training on internal safety culture principles and expectations to increase awareness and educate all employees. In addition, the agency should develop or emphasize training for employees at all levels to improve the interpersonal skills that are critical to supporting a strong safety culture.

An effective training program should be incorporated into the agency's Knowledge Management efforts to clearly communicate what safety culture means for the agency and to ensure that all employees understand how safety culture fits into their daily activities and how they, in turn, contribute to it. Training programs should educate as well as encourage and should emphasize individual responsibility. Although the training should apply to all employees, there should be particular emphasis on new employees, so that they are introduced to the agency's safety culture expectations from the outset (e.g., starting during the "onboarding" process) in a clear and consistent manner.

Training is also needed to develop and improve interpersonal skills that are vital to creating and maintaining a strong safety culture, emphasizing topics such as conflict management, fostering creative tension, innovation, collaboration, the value of diverse views, and team-building. These skills are crucial to a strong internal safety culture at all levels of the agency. In particular, all employees (staff level through management) need an improved understanding of the value of having diverse perspectives in the decisionmaking process and the need to effectively communicate the basis for a decision.

Furthermore, there should be a particular focus in the training for first-line supervisors, since these positions can profoundly affect staff behavior and performance. The relationship between staff and their direct supervisors is critical to sustaining a culture where diverse opinions are sought and encouraged. The NRC should evaluate its supervisory training classes, currently under development for the NRC Leaders Academy, to ensure they effectively cover the skills listed in the previous paragraph.

Through effective training programs, the staff and managers will become more aware of the value in raising and considering issues and concerns and will be equipped with knowledge of the available processes and options for doing so. In addition, both staff and their supervisors and managers will gain awareness of how behaviors, such as their response to concerns raised by others, can significantly affect the health of the safety culture. All employees would also gain an improved understanding of the agency's expectations related to safety culture and could use such awareness to guide their activities and behaviors. These training activities should periodically be assessed and modified, as needed, to ensure continued effectiveness.

Recommendation Basis

This recommendation addresses Theme 1, regarding lack of consistent understanding among staff on what safety culture means, particularly for those working in nontechnical areas. The training would clearly communicate the agency's expectations for safety culture and the important role everyone plays. In addition to current employees, this training would be

particularly beneficial in helping new employees become familiar with the agency's expectations. In the external benchmarking activities, many of the organizations had specific training activities related to safety culture, particularly for new employees.

Training that focuses on interpersonal skills would address areas of concern identified in several of the other themes, particularly in Theme 2 related to communications (e.g., clarifying expectations, providing feedback, and explaining decision outcomes). The training could provide guidance on how to improve communication techniques, activities, and content, particularly for first-line supervisors, which would address the issues identified by the focus groups regarding first-line supervision. The training would also address Theme 4, in terms of valuing diverse views and avoiding behaviors that could be perceived as negative consequences for raising differing views.

Recommendation 3:

The agency should assess the effectiveness of the current set of disconnected systems that comprise the agency's problem identification, evaluation, and resolution process to identify areas for improvement. Based on the results, the agency should develop activities, enhancements, or initiatives to address identified weaknesses and areas in need of improvement.

An organization's long-term success requires a culture of continuous learning and improvement. The building of a strong safety culture is dependent, in part, on all employees being able to and being encouraged to freely identify issues that they believe may affect the effective and efficient implementation of the agency's work activities. Once issues are identified, they must be evaluated, resolved, and effectively incorporated into the organization's processes to prevent recurrence and to facilitate continuous improvement.

When the Task Force set forth to identify mechanisms available for employees to raise issues, express differing views, or make suggestions, it realized that there are currently a variety of disconnected systems for doing so. Some examples include the differing views processes (DPO, Non-Concurrence Process, and the Open Door Policy), the Employee Suggestions Program, the Generic Issues Program, the OIG, the agency's Allegation Program, the National Treasury Employees' Union (NTEU), the Employee Assistance Program, the petition process in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206, and many office- and program-specific systems (e.g., the Office of Nuclear Reactor Regulation's Corrective Action Program, the Office of Research's feedback portal, and the ROP Feedback Process). In addition, the agency has Management Directive 6.8, "Lessons-Learned Program," dated August 1, 2006. This program was developed in response to the recommendation for an agencywide corrective action program in the "Effectiveness Review of Lessons Learned Task Force Reports," dated August 2, 2004. That task force was established, as a result of the Davis-Besse reactor vessel head degradation event, to determine whether recommendations from previous lessons learned had been adequately implemented. However, this program has a very high threshold for entry.

In many cases, there is not a clear or consistent path to resolution among this diverse range of processes. Based on their experiences, Task Force members were aware of concerns and problems regarding the effectiveness of some of these processes and also recognized that, in contrast, the practice by most licensees, particularly the larger organizations, is to have a

sitewide corrective action program that serves as a single point of entry to the problem identification, evaluation, and resolution process.

In conducting the assessment, the Task Force recommends evaluating current problem identification, evaluation, and resolution processes against the following set of goals. These goals were developed based on members' experiences with these types of systems and processes.

- An employee should be able to find information at a single location to assist in identifying the most appropriate process to pursue an issue, concern, or suggestion. For example, this could be through a consolidated Web page, a central contact (such as the position described in Recommendation 5), a physical location, or a new consolidated process for receiving and resolving issues, concerns, or suggestions.
- Issues, concerns, or suggestions should be effectively screened and prioritized, based on safety and security significance, as appropriate.
- The resolution of issues, concerns, or suggestions should be communicated and transparent to the originator and made available to those who have an interest in the areas being addressed, in a manner that is appropriate, based on the topic and situation. This will help support being a learning organization and maintaining an environment conducive to raising issues.
- Employees should be able to share information from these processes and systems, as appropriate, throughout the agency. This would facilitate the early identification of negative trends; promote consistent solutions to common issues, concerns, or suggestions; and provide the basis for evaluating the effectiveness of past corrective or improvement measures.

In addition, the Task Force believes the NRC should focus specific attention on improving the current Employee Suggestion Program, to encourage employees to share their ideas and suggestions on how to improve agency functions in a variety of areas. This is particularly important, given the large number of new employees, who may have insights based on their experiences outside the agency.

Recommendation Basis

Problem identification and evaluation and problem resolution are two of the characteristics in the Task Force's proposed framework for internal safety culture. Also, the ROP assumes that licensees have a healthy problem identification and resolution program, which allows for the identification of problems at a low threshold. A number of Task Force members have extensive experience in reviewing both the effectiveness of licensee programs to fully identify and resolve problems and the internal agency processes. Based on their experiences, Task Force members had a general concern about how well the various existing processes are meeting the goals listed above to support the identification, evaluation, and resolution of a wide range of issues that may affect agency functions and work products. In addition, during the Task Force public meeting, one of the panelists representing a public external organization recommended that each program office in the agency implement its own corrective action process and that an overall sponsor, at the senior management level, monitor the implementation of these processes.

Recommendation 4:

The agency should establish clear expectations and improved accountability for keeping its policies and procedures current and aligned and for maintaining their quality. These expectations would apply to procedures at the office or lower levels and supplement ongoing initiatives to update and maintain agency management directives.

The maintenance of high-quality internal procedures reflects a commitment to safety principles and is an important contributor to sustaining high standards in work activities. Although the agency has established expectations and performance measures for updating and maintaining agency management directives (as a result of the recommendations of the Management Directive Working Group), similar expectations and standards do not exist at lower levels, such as for office procedures. This recommendation supports the framework for an internal safety culture; specifically, the characteristics of work practices (e.g., performing work to high standards) and resources (e.g., ensuring available and adequate procedures), and facilitates the achievement of high-quality work, especially for those procedures and processes having the greatest impact on the agency's mission. Specific resources should be considered in the agency's budget decisionmaking process to accomplish the goals of this recommendation.

Recommendation Basis

Concern about outdated procedures and policies was a strong theme identified from the focus group results and other employee inputs. This aligns with information from other agency assessments (such as previous OIG surveys and information-gathering efforts under the agency's Knowledge Management efforts). The arrival of a large number of new employees has increased the importance of having accurate, up-to-date, and usable procedures that are aligned throughout the agency. Improving the accuracy and quality of procedures and policies at all agency levels would facilitate high-quality performance and work products.

Recommendation 5:

The agency should establish a dedicated advisor (or organization) to lead and coordinate efforts to implement and maintain a framework for ensuring a strong internal safety culture. Regarding implementation of this recommendation in terms of the specific grade level and reporting relationship, the Task Force identified two approaches but did not reach agreement on which the Task Force, as a whole, would recommend.

Establishment of this position or organization is intended to ensure that, ultimately, a culture of safety is well integrated into the daily activities of the agency. This position or organization would function as an advocate for safety culture activities in the agency by conducting and coordinating significant activities to monitor and strengthen the internal safety culture, including working with related initiatives by others (e.g., offices, groups, management) as appropriate. These include the following:

- promoting awareness,
- identifying training needs,
- evaluating program effectiveness,
- providing guidance to offices,

- recommending improvements, and
- acting as a liaison to external organizations and among NRC offices.

In addition, in the area of SCWE/OCWE, this advisor should do the following:

- assess the overall organizational climate on a regular basis;
- identify and mitigate barriers to maintaining an OCWE;
- evaluate existing agency-level efforts and identify additional ones needed to address concerns that raising differing views could have a negative impact on an employee's career or work environment (as discussed in Theme 4); and
- assess, identify, and develop improvements to the current processes for raising differing views, including the possible need for additional processes.

Another important function of this position would be to serve as a resource to assist employees in selecting and effectively using the most appropriate avenue for registering differing views, making suggestions, or addressing mission/work-related concerns⁷. The advisor would provide guidance on the most effective avenue for the employee to pursue, depending on the nature of the issue. Recommendation 3 includes examples of some of the available processes for which this advisor may provide guidance. Issues within the scope of responsibility for this position could include submitting a safety or security concern or suggesting an improvement to an internal procedure. The advisor would also focus on improving communication about the various avenues available, such as developing a comprehensive Web page or navigation tools for employees. It is important to clarify that the advisor should not be responsible for taking any actions to investigate or resolve concerns or differing views, and thus no further action would be required after meeting with the employee. In developing the roles and responsibilities for this position, agency management should work with the NTEU to ensure that the union retains its rights under law. In addition, the agency should consider how to handle the issue of confidentiality (i.e., to what extent provisions for confidentiality can and should be provided).

This advisor should work closely with the individuals or organizations responsible for activities related to the safety culture of licensees to ensure the alignment and consistency, where appropriate, of agency safety culture activities. This is important because both internal and external approaches in this area may evolve over time. In addition, this advisor could continue to engage with public stakeholders to gain their views on the agency's internal safety culture, and factor such input into ongoing assessment activities to improve public confidence. Finally, the advisor should provide a periodic public report addressing all the functions described above.

There are two distinct sets of knowledge, skills, and abilities (KSAs) needed to facilitate success in this position. The first is having the appropriate KSAs in the areas of safety culture and organizational effectiveness. The topic of safety culture is complex because the factors that influence organizational behavior and culture can be numerous and varied, and there is no single model of organizational behavior or culture. Maintaining the necessary understanding and oversight of an organization's culture requires knowledge and experience in integrating perspectives and processes throughout an organization. Therefore, such KSAs are necessary

⁷ This position would not deal with matters relating to the employment of any employee (grievance), any personnel practice, or other general condition of employment because these matters, by law, need to be directly addressed to NTEU as the exclusive representative of bargaining unit employees.

to effectively monitor the health of the internal safety culture and to create lasting improvements. In addition, for assisting employees in selecting the most effective avenue for addressing issues, the individual(s) must have the necessary interpersonal skills needed for interacting with staff effectively in such situations. Individual(s) who possess both skill sets may serve in both capacities. If an individual has the necessary skills to serve in one function but not in the other, the functions may need to be performed by more than one individual to collectively meet the skill sets.

Recommendation Basis

In conducting its activities, the Task Force quickly reached two conclusions that led to the development of this recommendation. First, it was clear to the Task Force that safety culture is a complex area, with many interrelated factors to be considered. Second, there is currently no person or organization assigned responsibility for maintaining an integrated vision and strategy for the various activities that are intended to support a strong internal safety culture. Given the complex nature of the subject area, the wide variety of improvement initiatives and activities that could be undertaken (e.g., implementation of activities to support Recommendations 1-4), and the need for ownership and coordination of improvement efforts to ensure effectiveness, the Task Force strongly recommends a dedicated position or organization to serve in this capacity.

The establishment of this position would reinforce the agency's intent to maintain an OCWE, in part by actively emphasizing and facilitating the effective and efficient use of the various avenues available for pursuing differing views or other concerns. Because establishing and maintaining an environment conducive to addressing issues and raising concerns is vital to a strong safety culture, this position would have responsibility for significantly contributing to the development and support for such an environment.

The functions described above for this position would address the concerns identified in all the themes, and therefore the establishment and proper staffing of this position or organization is extremely important to the improvement and maintenance of the agency's internal safety culture.

Approaches for Implementation

After achieving strong consensus on the need for this position or organization and its functions, the Task Force had extended dialogue regarding the specific grade level and reporting relationship. Task Force members were divided on this question, with 11 members supporting that a SLS employee or SLS-led team, reporting directly to the EDO, should be appointed, and 12 members supporting a more general approach, i.e., not providing a specific position level and reporting relationship. The bases for each of these approaches are articulated below.

Approach 1 (SLS Reporting Directly to the EDO)

The Task Force is generating a high-level report, by design. However, given the importance of this recommendation to the overall success of safety culture improvements at the agency, it is necessary to include additional specificity to address the issues of position level and organizational reporting.

As with other NRC SLS advisors who have specialized professional knowledge in a complex area, it is essential that these initiatives be led by an individual or group of individuals who have distinct expertise in the safety culture area. In addition, given the major duties and functions,

knowledge and skills, contacts and commitments, discretion, and responsibility envisioned for this position, the expectations for this individual or group are high. Therefore, many of the Task Force members believe that the appointment of an SLS or SLS-led team is appropriate and necessary. For example, in Management Directive 10.145, "Senior Level System," dated June 12, 1996, the benchmark description for an SL-2 professional and administrative position reads as follows:

Provides authoritative assistance, advice, and guidance to senior agency management in a specialized professional or administrative field or discipline in assignments of exceptionally high priority or criticality to the support and facilitation of major NRC functions and mission activities. Serves as a Commission-wide resource for significant policy, program, or operational initiatives associated with a complex area of specialization having broad impact on a variety of organizational elements and acts as the agency's principal liaison with external groups and organizations for all related matters. Provides authoritative consultation, guidance, assistance, and recommendations in the area of expertise or responsibility to office management and staff, other NRC offices and personnel, and Commission members and their staffs.

Appropriate placement in the organization is also critical to the success of this recommendation, as it can affect visibility, accessibility, and credibility. Given the agencywide scope of the safety culture function and the sensitive nature of the position (i.e., dealing with attitudes and behaviors of employees at all levels, including high-level managers), it should be independent of line management and report to the EDO (although this does not imply that it needs to be located in the Office of the EDO). Placing this function within the reporting authority of a program office could present a possible conflict of interest and affect the visibility, accessibility, and credibility necessary for this initiative to succeed. For example, employees might not feel comfortable approaching an advisor or team who is within an employee's management chain. In addition, placing the advisor or team in a program office could compromise an independent assessment of the organizational climate of that organization. Furthermore, appropriate placement in the agency can send a strong message that management recognizes the importance of safety culture and is committed to its success.

Establishing a position reporting to the EDO would be in alignment with several external organizations benchmarked by the Task Force that had clear organizational contacts for overseeing safety culture activities which had close reporting relationships to the leadership of the organization, as discussed in the results section.

Finally, this advisory position includes direct responsibility for leading, guiding, and assessing the implementation of the other recommendations in this report, and therefore, their success depends on this position being filled by a person(s) with the appropriate qualifications and authority as defined by at the SLS level, reporting to the EDO.

Approach 2 (General Approach)

A segment of the Task Force members recommends that, in addition to the specific expertise required for the advisor position or organization, the following factors be evaluated in the implementation of this recommendation:

- level of authority
- degree of independence

- accessibility to all employees
- level of credibility within the agency (as well as externally)
- visibility throughout the agency

The Task Force members who aligned with this approach shared agreement with many of the points discussed under approach 1. These members recognized the wide scope, important functions, and potential challenges this position or organization would encompass. These members believed that, for the advisor or organization to effectively create significant and lasting improvements to the agency's internal safety culture, the agency should fully consider these other factors, in addition to expertise. These factors would also help demonstrate management commitment to a strong internal safety culture. Considering these and other relevant factors, the agency should use its standard processes for identifying grade levels and reporting relationships to determine the most effective placement of the position or organization, as there might be multiple options (with approach 1 being one example).

The Task Force members who favored this approach chose not to recommend a specific grade level and reporting relationship for the following reasons:

- (1) These members did not have the knowledge or experience needed to appropriately determine the level and reporting relationship of the position, which is a function that should be determined by standard agency processes based on the position description and duties.
- (2) The agency would need to consider a range of other factors, such as resources, organizational structure, and management approach, in addition to those listed above, in establishing this position or organization. Without full knowledge of all the relevant factors, these members did not believe it would be appropriate to identify a specific grade level or reporting function.
- (3) If the Task Force made a more specific recommendation, and, after all relevant factors were considered, the agency decided on a different level or reporting relationship, it could create the perception of a lack of management support and acceptance for the Task Force recommendation. This could overshadow the viewpoint that creating such a position would be progress in terms of meeting the overall objectives of the recommendation. Under this more general approach, the establishment of this position, after full consideration of the factors described above, would demonstrate support for the overall recommendation.
- (4) Including specific requirements regarding the level and reporting function of the recommended position could distract from the overall goals and value of this recommendation. This more general approach places the focus of the recommendation on the objectives and functions of the position.

Because this would be a new position or organization, the agency should monitor and evaluate it to identify potential changes or improvements to enhance its effectiveness in the future.

Other Considerations

The Task Force suggests all offices review and consider applying to their offices the internal good practices (described in Appendix H) and insights developed from the

external benchmarking efforts (described in the “Results and Insights” section) for supporting a strong safety culture.

The list of practices that support an internal safety culture collected by the Task Force in its internal benchmarking contains many items that potentially have value in being expanded or adopted by other groups. The Task Force does acknowledge that, with the diverse range of office sizes, complexity, and functions, some practices may not be as effective for some offices as they are for the originating offices and that modifications or adjustments may be needed to achieve the intended effects. In addition, the insights drawn from the external benchmarking efforts can also be evaluated for applicability. Conducting a review of these practices would support the characteristic of a continuous learning environment (i.e., identifying innovative practices and improvements).

Acknowledgement of Existing Agency Activities

The Task Force would like to acknowledge that there are a number of existing initiatives and activities undertaken by the agency that support elements of a strong safety culture (e.g., the wide variety of good practices the Task Force collected from its internal benchmarking activity). Based on the collected data, the Task Force would like to recognize and recommend continued emphasis in three specific areas.

The first is the agency’s activities related to Knowledge Management. This area continues to be a concern to staff, as indicated by the focus group results, particularly with regard to capturing knowledge from staff leaving their positions. The Task Force recommends continuing focus in this area, including monitoring the effectiveness of current activities and identifying opportunities for further improvement.

The second is related the concept of NRC Team Players. NRC Team Players are identified as supporting an OCWE by having a high standard of involvement and responsibility for regulatory decisions and by exhibiting appropriate behaviors in promptly raising, fairly considering, and respecting differing views. (Appendix K contains the NRC Team Player poster that lists these performance expectations.) The NRC Team Player award was created in 2008 to show appreciation for individuals who have supported an OCWE and to reinforce the value of differing views. The Task Force recommends continuing the agency’s focus in this area.

The last area is related to personnel health and safety. Although not directly included in the scope of Task Force activities, which interprets safety as it relates to the NRC mission, attention to personnel safety is critical to the effective functioning of the agency and directly supports creating an overall environment and culture of focus on safety in a holistic manner. Some of the comments received by the Task Force were related to personnel safety and the importance of safe working conditions for all NRC individuals. The Task Force acknowledges the existence of many agency activities in this area and encourages a continued focus on these initiatives.

Lessons Learned Evaluation

The Task Force evaluated the guidance in Management Directive 6.8 to determine if any of its recommendations met the criteria for designation as a lessons-learned item. The Task Force concluded that its recommendations do not meet any of these criteria listed in Management Directive 6.8.

Additional Comments

The following additional comments provide the views of only the individuals noted. These views were not adopted by the Task Force as a whole.

1. Comments provided by Task Force members Isabelle Schoenfeld, Lisamarie Jarriel, and Renée Pedersen, and NTEU Representative to the Task Force, Alex Murray:

For the past several years, attention to the area of safety culture related to the NRC's oversight of licensees has increased. This is evidenced by the Commission having issued Staff Requirements Memoranda on enhancing the ROP to more fully address safety culture and updating the Commission's policy on safety culture. In addition, the Office of Nuclear Reactor Regulation and the Regions have implemented changes to the ROP to more fully address safety culture. The Office of New Reactors established a safety culture task group to consider how to implement areas important to safety culture in the reactor construction oversight program. The Office of Nuclear Materials, Safety, and Safeguards established a safety culture pilot team to review the ROP's safety culture components for applicability to the fuel cycle oversight program.

Given this significant additional attention being paid to safety culture, both externally and internally, and the fact that the KSAs (as described in Recommendation 5) needed for both internal and external safety culture overlap, an excellent opportunity exists to consider possible options for addressing agency internal and external safety culture roles and responsibilities. One of the options we would like to suggest for consideration is the establishment of an SLS-led organization (what some have referred to as a "Center for Excellence in Safety Culture") comprised of staff with the appropriate expertise to support both internal and external safety culture related activities.

2. Comments provided by the NTEU representative to the Task Force, Alex Murray

I am the NTEU representative to the Internal Safety Culture Task Force. I am providing my own personal comments (below) on the report and the agency's safety culture.

I generally agree with the findings of the Task Force and their recommendations in the Task Force report. Staff concerns expressed to myself and other NTEU members generally follow the themes in the Task Force report; in particular, reluctance to raise concerns due to fear of a negative work environment, and concerns about negative consequences and retaliation for raising safety issues, including staff use of the Non-Concurrence and DPO Programs (e.g., report Theme 4). Staff has also noted to me and other NTEU representatives the agency emphasis on programmatic issues (e.g., schedule) at the expense of safety issues (e.g., report Theme 5). These realities can cast a chilling effect upon the agency and can adversely affect the agency's core mission of regulating nuclear safety. We need to refocus on safety first.

I recognize the agency will be receiving additional input related to the safety culture as part of the OIG's Safety Culture and Climate Survey, due to be conducted and compiled over the next few months. I note that previous surveys

have also focused on internal communications and work practices, and have found staff safety culture concerns with raising specific safety issues, such as via the DPO process.

The Task Force report is a necessary first step in addressing the safety culture concerns. However, I conclude that the second step – implementation - and its details - are keys to successfully resolving these concerns. The agency's staff does the majority of the work in an environment with a generally top-down, naval-like, autocratic management style. Often, the management systems directly and indirectly impact staff findings and conclusions, by establishing expectations or other goals that define, imply, or influence a predetermined outcome, and rewarding those who align themselves with this outcome. The details of implementation the report's recommendations need to correct this management style. Otherwise, the agency's safety culture will not be improved, and the Task Force report will become another report gathering dust.

Consequently, I encourage the agency to be aggressive in improving its internal safety culture as part of the implementation of the Task Force report.

I offer the following specific items (developed from themes, findings, and recommendations in the Task Force report) for consideration as we move forward on improving the safety culture:

1. Currently, many members of the staff observe there is a misalignment between agency statements regarding safety culture and issues, and our actual practices. While we state our mission is to ensure safety, we largely evaluate and reward based upon meeting programmatic schedules and licensing activities, often in a manner favorable towards licensees. Frequently, staff is directed to meeting a schedule to accept or approve an action as successfully meeting a metric. This underlies all five themes and five recommendations in the Task Force report. As a start, metrics in operating and performance plans should be refocused towards safety, even if it means schedule delays. Staff should be acknowledged with more citations and awards for safety-related activities.
2. As a corollary, members of the staff have frequently expressed to the NTEU concerns about the increasing demands on staff time for non-mission critical tasks, such as more stringent administrative activities (e.g., time, leave, travel, tickets, multiple budget exercises). Completing these activities is often part of the performance measures of NRC organizations and individual staff. This emphasis negatively impacts safety culture. It is suggested that means to reduce the administrative burden upon the staff are found.
3. The concurrence process is an important part of the safety culture (e.g., in Theme 4 and Recommendation 3 of the Task Force report). I note that current practices often reduce the number of staff concurring on reports and activities, as a means to facilitate meeting schedule. Often, significant staff contributors or staff with interest in a report or action are excluded or not even informed. Changes can be made during management concurrence that the staff might not agree with. I recommend concurrences include all significant contributors and that interested staff are given the opportunity to concur/non-concur. Documents should not be allowed to proceed further until management has provided written

acknowledgement of any non-concurrences, attempts at resolution, and their rationale for proceeding without resolving the non-concurrence(s). Significant changes should include re-concurrence by the originating staff. All documents involved, including any non-concurrences and management responses, should be incorporated in the approval packages going forward to higher management and be made publicly available as soon as possible, as part of the same Agencywide Documents Access and Management System (ADAMS) package.

4. Consensus is part of the concurrence process and should be defined and encouraged – it is not simply a voting process with a simple majority needed. Consensus building should include staff interested and knowledgeable in the subject matter under discussion.

5. I note the quality, capabilities, and “local institutional memory” of first and second level managers have declined in recent years, in contrast to a decade or more ago when managers were frequently experts or otherwise well regarded in the technical, safety, and/or regulatory areas they managed. Consequently, these managers are significantly less interested and less engaged in the technical, safety, and regulatory issues of activities and licensing actions, and more focused on programmatic metrics (e.g., schedules, meetings) and administrative duties. No manager admits and corrects mistakes. The “fungible manager” approach (e.g., frequently moving managers) has exacerbated the situation. This is an underlying factor to all of the themes and findings in the Task Force report and undermines safety culture. It is recommended that management selection places a far greater emphasis on the technical, safety, and regulatory expertise (etc.) matching the position, and that the selected manager stays in the position or area for a longer timeframe (the current average is often three years or less).

6. I find the need for an individual/advisor (or organization) dedicated to safety culture compelling for addressing safety culture concerns (Task Force report, Recommendation 5). This individual/organization would provide key input on safety culture to the NRC’s Strategic Plan and performance management tools, training, problem identification/evaluation/resolution processes, and expectations (Task Force report, Recommendations 1-4). This advisor/organization must be independent, and, therefore, it is recommended that they are part of or report via the advisory committee route (e.g., the Advisory Committee on Reactor Safeguards (ACRS) organization). Such an arrangement would also provide the advisor/organization with access to technical support for resolution of significant safety issues that might arise from the Non-Concurrence Process and DPO process. This individual/organization should also have an advocacy role for significant safety issues, such as those raised by the Non-Concurrence Process and DPO process, and a tracking function (again, for significant safety issues and Non-Concurrence/DPO issues and recommendations).

7. The advisor or head of the safety culture organization should be a senior level position, as noted in the report. This level is needed to demonstrate the agency’s commitment to safety culture and to ensure the appropriate level of experience and expertise is applied.

8. Theme 4 and Recommendation 3 of the Task Force report concern the Non-Concurrence, Differing View Advice/Advisor, and DPO processes. Staff has routinely and consistently expressed concerns about these processes for many years. A stronger recommendation is in order. It is suggested that these are definitively improved. For example, key improvements should include making these processes fully transparent and public, moving them to the ACRS organization, greater panel independence, independent tracking of management responses and corrective actions, management accountability, independent decision makers, reduced conflicts of interest, and mechanisms for potential National Academy of Sciences/National Academy of Engineering involvement for significant issues/DPOs.

9. The NRC is also pursuing (external) safety culture activities with its licensees. Consequently, there should be alignment between the internal safety culture advisor/organization and the external safety culture activities due to the similarities of issues and approaches involved.

It is important to track the progress of the agency as safety culture improvements are implemented. Consequently, the Task Force, or a subset thereof, should be tasked in 12-24 months to revisit the situation.

Again, these are my personal views. However, they are in general alignment with observations by NTEU representatives on agency safety culture over the past few years.

Alex Murray
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Appendices

- A. Task Force Guidance Documents
- B. Historical References to NRC Internal Safety Culture
- C. Proposed Internal Safety Culture Characteristics and Aspects
- D. Focus Group Report
- E. External Benchmarking Information
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- H. Internal Benchmarking Results
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Note: The term safety culture “components” was used originally during the data gathering activities. During the compilation of the Task Force report, the term was changed to safety culture “characteristics” to align with the change in terminology from the initiative to develop a draft Commission Policy Statement on safety culture for all NRC licensees and certificate holders. Therefore, both terms are used throughout the documents in these Appendices, depending on when they were developed. Going forward, the term will be “characteristics.”

A

Task Force Guidance Documents

1. Staff Requirements M080317B, "Briefing on State of NRC Technical Programs," dated April 3, 2008 (ML080940439), which provided the tasking for this initiative.
2. "Internal Safety Culture Task Force Charter," dated October 24, 2008 (ML082800307).
3. COMSECY-09-0001, "Internal Safety Culture Task Force Interface with Office of the Inspector General Safety Culture and Climate Survey," dated January 22, 2009 (ML090130402).
4. Staff Requirements - COMSECY-09-0001, "Internal Safety Culture Task Force Interface with Office of the Inspector General Safety Culture and Climate Survey," dated February 6, 2009 (ML090370943).

B

A Brief History of Excerpts Related to Internal NRC Safety Culture

The following is a sampling of excerpts from historical documents related to the agency's efforts to improve its internal processes. It is not intended to be comprehensive, but rather to give a flavor of the length and breadth of this historical 'conversation.'

1978 – NUREG-0500 “A Survey of Policies and Procedures Applicable to the Expression of Differing Professional Opinions”

The Differing Professional Opinion (DPO) process was created circa 1976 apparently in response to technical concerns being raised publicly by certain NRC staff members. In 1978, the NRC Chairman also issued a request to all NRC employees to assist “in improving communications between all levels within NRC – to make “open door” policy more of a reality both in concept and in practice within NRC.

1979 – The President’s Commission on the Accident at Three Mile Island (Kemeny Report)

“To prevent nuclear accidents as serious as Three Mile Island, fundamental changes will be necessary in the organization, procedures, and practices -- and above all -- in the attitudes of the Nuclear Regulatory Commission and, to the extent that the institutions we investigated are typical, of the nuclear industry.

In the testimony we received, one word occurred over and over again. That word is 'mindset.' The most serious 'mindset' is the preoccupation of everyone with the safety of equipment, resulting in the down-playing of the importance of the human element in nuclear power generation.”

1980 – Memo from V. Stello, Director, Office of Inspection and Enforcement, “Safety Significance and Discussion About Important Matters,” dated October 1, 1980

“The first policy I want to remind you of is that consideration of safety significance always precedes noncompliance in evaluating any concern.... The second policy I want to remind you of is that inspectors are expected to communicate promptly to their supervision all concerns involving public safety and national security.”

1991 – NRC Principles of Good Regulation

The five Principles were approved by the Commission in 1991. They continue to be referenced in the NRC's Strategic Plan and public website.

Independence
Openness
Efficiency
Clarity
Reliability

1991 – NRC Technical Staff Performance Expectations, issued by J. Taylor, EDO, dated September 17, 1991

“Using [the NRC Principles of Good Regulation] as a guide, the [enclosed] NRC Technical Staff Performance Expectations contain my concept of how the technical staff can collectively and individually implement these principles.

Despite my attempts to convey my expectations to you, overall professionalism and excellence in performance cannot be mandated. You must build it from individual pride in your work and a commitment to a superior work ethic.

We all share a vital role in assuring the continued safe operation of nuclear facilities in the United States. Your individual efforts in aspiring to and achieving excellence in performance will make a difference.

THE SAFETY EXPECTATION – safety is our first priority, whether our role is the promulgation of safety standards or the assessment of safety performance.... It is our responsibility to recognize and resolve safety issues whenever and wherever they are found.

Expectations within the agency – In order to succeed in our mission, management and employees must create an environment that is conducive to achieving excellence. Teamwork and mutual respect are necessary components of such an environment. Within the agency, we must recognize that managers, technical staff, *administrative staff, and secretaries* [emphasis added] all contribute importantly to our work.... Fundamental to this teamwork and mutual respect are the partnerships that are forged between the individuals and their supervisors. These partnerships should ensure that appropriate elements and standards for each position are clearly articulated. Open and two-way communications should exist for each work assignment so that adequate oversight is provided and early identification, resolution, and follow-up is provided for problems encountered. As part of the partnership, supervisors should maintain accountability by providing timely feedback to their employees regarding both excellent and poor performance and by accurately reflecting this performance in appraisals in accordance with established elements and standards. Employees, for their part, must perform their duties with the highest possible degree of expertise and professionalism, and keep supervisors and managers informed of safety issues as they arise.

Expectations for Managers –

- Managers must direct the focus of their subordinates' activities on safety.
- Managers establish and lead a response to safety issues that is commensurate with their safety importance.
- Managers assimilate feedback on safety issues from their subordinates and probe for trends, generic issues, and the appropriateness of agency response...”

1993 – Speech by Dr. Thomas Murley, Director of NRR, entitled “The Management Challenge of Safe Nuclear Operation,” dated May 1993

“In the aftermath of the [loss of feedwater event in June 1985] Davis-Bess event, the NRC staff took a closer look at its procedures for evaluating the operational safety performance of power reactor licensees. The staff examined its inspection program, the Systematic Assessment of Licensee Performance (SALP) program, and its own internal processes for integrating all agency information available on each licensee’s safety performance.

The conclusion from that introspective look was that NRC should focus more effort on improving operational safety and should improve its method of integrating all the information gathered from inspections, licensing reviews, SALP reports, operational data analyses, and special safety analyses, to arrive at an overall assessment of how safely licensees were operating their plants.

As a result, the inspection program in recent years has become more diagnostic in nature, and not merely compliance-oriented as in past years.

The focus on assessing the management of plant operations has taken the NRC beyond its traditional focus on equipment performance and procedure control, into such areas as evaluating safety attitudes, for example.”

1994 – Towers Perrin Nuclear Regulatory Review Study

From the cover letter of the industry-sponsored Towers Perrin study:

“...the report demonstrates that chronic and significant problems with the NRC’s regulatory approach have existed for at least 15 years, and that these problems still persist....The review also showed that while U.S. nuclear power plants are very safe, recent NRC actions have added little improvement to the safety margin, and have added significantly to consumer costs for electricity. There are strong indications that some NRC activities may actually reduce the safety margin by distracting licensee management, to whom the principal responsibility for nuclear safety is entrusted. Even though the industry itself is well aware of these and other regulatory problems, it has not come forward to present these issues to the NRC because of an intense and widespread fear of retribution by the NRC.”

[In forwarding this report to the NRC staff, the NRC EDO, J. Taylor, wrote: “Although I do not agree with all the issues and implications in the Towers Perrin report, I have asked the staff to evaluate the report to determine what actions, if any, are appropriate to address the industry’s concerns.... In keeping with our Principles of Good Regulation, the NRC welcomes the views of others and we encourage further discussion of the concerns voiced in the report. I also believe that all of us can profit by criticisms even if we do not completely agree with them.”]

1995 – NRC Organizational Values defined

NRC’s organizational values:

Integrity ... in our working relationships, practices and decisions.

Excellence ... both in our individual and collective actions.

Service ... to the public, and others who are affected by our work.

Respect ... for individuals’ roles, diversity, and viewpoints.

Cooperation ... in the planning, management, and work of the agency.

Commitment ... to protecting the public health and safety.

Openness ... in communications and decision-making

[These were developed as a project by the first NRC SES Candidate Development Program class in 1995 as a complement to the Five Principles.]

1995 – Letter from J. Taylor, EDO, dated July 28, 1995, conveying Commission’s Policy “Communications Between the NRC and Licensees”

“The Commission encourages and expects open communications at all levels between its employees and those it regulates. The NRC will not tolerate inappropriate regulatory actions by the NRC staff, nor will it tolerate retaliation or the threat of retaliation against those licensees who communicate concerns to the agency. Inappropriate regulatory actions include activities which exceed the agency’s regulatory authority, involve improper application of agency requirements, or adversely affect the agency’s regulatory functions.”

[This Policy was one of the NRC’s responses to the 1994 industry-sponsored Towers Perrin Nuclear Regulatory Review Study that asserted examples of improper regulatory actions.]

1997 – NRC Yellow Announcement 97-114 “Discussion of Safety and Compliance”

“What is the nexus between compliance and safety?”

1. Safety is the fundamental regulatory objective, and compliance with NRC requirements plays a fundamental role in giving the NRC confidence that safety is being maintained.
2. Adequate protection is presumptively assured by compliance with NRC requirements. Circumstances may arise, however, where new information reveals, for example, that an unforeseen hazard exists or that there is a substantially greater potential for a known hazard to occur. In such situations, the NRC has the statutory authority to require licensee action above and beyond existing regulations to maintain the level of protection necessary to avoid undue risk to public health and safety.
3. The NRC has the authority to exercise discretion to permit continued operations – despite the existence of a noncompliance – where the noncompliance is not significant from a risk perspective...
5. Since some requirements are more important to safety than others, the Commission should use a risk-informed approach wherever possible when adding, removing, or modifying NRC regulations, as well as when applying NRC resources to the oversight of licensed activities....”

[This announcement conveyed a Commission-approved Policy entitled “Safety and Compliance” which originated from a 1989 EDO memo to the staff on the same subject. This Policy has been retained in the NRC Enforcement Policy.]

1998 – First OIG survey of NRC Safety Culture and Climate (OIG-97-A-16)

“Strengths of NRC's Safety Culture:

The workforce is very dedicated to NRC's mission. Employees at all levels recognize their colleagues are very conscientious and dedicated to the safety mission of the NRC. The NRC, as an agency, is committed to protecting public safety.

Areas of Difficulty for NRC's Safety Culture:

1. Employees report high levels of uncertainty and confusion regarding new directions in regulatory practices and impending changes facing the agency.
 - 1a. Employees require further guidance from the commission on how to change the agency. Many employees report a "gap" between the objectives articulated by the commission and the implementation to achieve these objectives.
 - 1b. Many employees/managers are unsure how "risk-informed" regulation will impact their work.
2. Many employees say there is fear among the staff of making a mistake, leading to a growing "cya" mentality.
 - 2a. Employees report that communicating problems results in a "shoot-the-messenger" syndrome.
3. Employees are experiencing increasing workloads, decreasing staffing levels and little prioritization by management.
4. Many managers lack broad management skills and training. Additional training is needed for managers to become better leaders according to staff.
5. NRC's technical prowess will be significantly impaired due to retirements. Very little "new blood" is coming into the agency with technical expertise.
6. Employees describe the NRC as having a very hierarchical, top-down management approach. Employees report increasing levels of micro-management. They feel this reflects a lack of respect and trust in their depth of knowledge and expertise.
7. The communications between various units can be difficult. Communications within the branches/sections is often cited as very good, but perhaps at the expense of inter-divisional dialogues.
8. There is a perception that too much time is spent on paperwork that may not contribute to the safety mission of the organization.
9. NRC staff perceive fewer career opportunities as the industry declines and agency budgets shrink.
10. Technical training was traditionally a strength, but the funding is perceived as dwindling.
11. The NRC, in the employees' eyes, has not defended itself well in the public arenas.

12. Employees complain about the lack of continuity in how the regions are being managed.”

2000 – OIG audit of DPO/DPV program (OIG-00-A-7)

“Significant, long-standing weaknesses persist in the DPV and DPO processes, which reduce program effectiveness. Specifically, this audit disclosed that staff do not view the program as effective; the DPV and DPO processes are not timely; and staff perceive retaliation as a consequence of filing a DPV or DPO. Improvements in these areas should enhance overall program performance.

We recognize that the DPV/DPO program is very important because it allows the staff to raise safety significant issues. The staff has a professional obligation to inform management of safety risks they believe would affect the health and safety of the public. This sense of obligation was very evident during the DPV and DPO staff interviews. However, the program's effectiveness is diminished because (1) many of the staff we interviewed do not view it as useful for resolving professional differences; (2) there are too many inconsistencies in the MD and in the application of the processes; (3) the absence of a tracking system leads to a lack of accountability to ensure the program is working; and (4) the agency does not conduct regular management reviews to determine whether the program is working as intended.”

2002 – Special Review Panel Report (on Differing Professional Views or Opinions)

“...specific findings....: The candid and open discussion of issues and concerns is an important and necessary element of NRC's safety culture.
...recommendations...: 1) Establish an agency-level program manager. 2) ...drop the DPV step, define a simplified appeal step, and eliminate the periodic special review panel. 3) Ensure that the revised DPO process is flexible enough to allow for workload considerations and case complexity. 4) Designate clearly defined roles and responsibilities for communication points in the process. 5) Require informal discussions prior to initiating a DPO, ...expressly state in the MD that the process may be used without fear of retaliation, penalty or reprisal, which are unacceptable actions, [establish] proactive education and training, and when merited, awards or other recognition should be directly linked to the DPO submittal.”

[Per this SRP's recommendation's, this was the last SRP report issued. In addition, subsequently a DPO/Differing Views program manager position was created within the Office of Enforcement.]

2002 – Remarks by NRC Chairman Richard Meserve “Safety Culture: An NRC Perspective”

“Although the elements of safety culture are somewhat amorphous, there is general agreement that they include both organizational and individual aspects. Elements commonly included at the organizational level are senior management commitment to safety, organizational effectiveness, effective communications, organizational learning, and a culture that encourages the identification and resolution of safety issues. Elements identified at the individual level include personal accountability, a questioning attitude, and procedural adherence.

My talk thus far has focused on the importance of safety culture to licensees. I would be remiss if I did not acknowledge that the NRC also has a responsibility to maintain a strong safety culture among its own staff. Not surprisingly, the elements of safety culture at the NRC are essentially the same as those we expect from our licensees. And just as our licensees have on occasion had to deal with problems in maintaining a strong safety culture, the NRC has challenges in this regard as well.

The candid and open discussion of issues and concerns is an important and necessary element of the NRC's safety culture. NRC employees are encouraged to develop their own best professional judgments, even when those judgments differ from the prevailing staff position or disagree with a policy decision or practice. In order to ensure that these alternative views are considered, NRC has established a process for handling differing professional views and opinions. In September 2000, NRC's inspector general completed a review of this program and identified several weaknesses. The Commission established a special review panel to address these problems and is implementing various changes.

One management challenge that we clearly share with our licensees is the need to continue to maintain an appropriate emphasis on safety culture over time. All too often, we have seen operational excellence eroded by complacency. As a result, we must continue to stress the need for vigilance both by licensees and by NRC staff. Indeed, I expect that we will have some further insights on the NRC's progress in maintaining an appropriate safety culture in another week or two when we obtain the benefit of a survey of the NRC staff that has been undertaken by our Inspector General.”

2002 – Second OIG survey of NRC Safety Culture and Climate (OIG-03-A-03)

“Strengths of NRC’s Safety Culture:

The workforce is dedicated to NRC’s safety mission. The NRC, as an agency, is committed to protecting public safety. Following the September 11th incident, employees sense a rededication to the goals and mission of the NRC and express a rejuvenated sense of pride as NRC employees.

Areas of Difficulty for NRC’s Safety Culture:

1. NRC employees tend to perceive training and development programs for new NRC employees as inadequate and ineffective in producing a significantly skilled workforce for the future.
2. Career advancement opportunities are seen as limited throughout the NRC and concern is expressed that the most competent employees are not being promoted.
3. Concerns with operational efficiency are expressed: excessive paperwork, arduous proprietary software packages, staffing issues leading to excessive workload.
4. Concern that NRC is becoming influenced by private industry and its power to regulate is diminishing.

5. NRC employees are concerned about management succession planning stating that the agency has not realistically prepared to recover from the exodus of its aging workforce.
6. Many NRC employees perceive a compromise of the “safety culture” as an effect of job-stress and poor work-life balance consideration by NRC management.
7. Employees tend to be confused regarding an overall agency mission. Agreement among the NRC staff that headquarters is not disseminating information in an effective manner as well as equitably among the regions.
8. Safety training is considered to be based on outdated scenarios that leave the security of the nuclear sites within the United States vulnerable to sabotage.”

2002 – Davis-Besse Lessons Learned Task Force Report, dated September 30, 2002

“The task force concluded that the event was not prevented because: (1) the NRC, DBNPS, and the nuclear industry failed to adequately review, assess, and follow up on relevant operating experience; ...and (3) the NRC failed to integrate known or available information into its assessments of DBNPS’s safety performance.

The [DBLLTF] recommendations involve the following areas: (1) inspection guidance; (2) NRC and industry processes to assess operating experience; ... (4) assessment of NRC programs, processes, and capabilities; (5) NRC staff training and experience; ... (9) NRC licensing process guidance development and implementation; and (10) previous NRC lessons-learned reviews.”

2003 - Report of the NRC Safety Culture and Climate Task Group, memo from W. Travers, EDO, to the Commission, dated June 13, 2003

“The task group recommends that the NRC focus its improvement efforts on four major areas:

(1) improving internal communications, (2) providing an additional avenue and guidance for handling employee concerns, (3) defining expectations for management leadership skills, and 4) reinforcing the paramount importance of the NRC’s safety mission relative to other strategic performance goals. These areas are discussed in more detail in the Recommendations section of the task group’s report. In addition, the task group has identified best practices that may be useful to individual offices and managers.

Recommendations:

1. Establish a Communications Council – to plan, coordinate, and implement NRC internal communications strategies, and share best practices that add value across the agency.
2. Establish an Employee Concerns Program – to provide an avenue for employees who are reluctant to use existing reporting mechanisms to express and obtain feedback on their concerns about NRC decisions on regulatory matters, policies, or the management of NRC operations, and serve as a collection point for innovative ideas and suggestions about NRC’s work processes.

3. Create an Advocate for Effective Management Leadership in the NRC – to define expectations for managers and communicate NRC’s leadership philosophy as well as institutionalize the concept that leadership will be an ongoing agency focus.
4. Reinforce the paramount importance of the NRC’s safety mission relative to other strategic performance goals – by internally publiciz[ing] and periodically reinforce[ing] the message that among NRC’s performance goals, safety is our first priority.

Leadership Best Practices for Office Consideration:

Management-to-Staff and Staff-to-Management Feedback

- On a regular basis, managers should provide clear and timely feedback on issues and decisions (whether or not employee input has been adopted) and solicit feedback from the staff.
- Encourage managers to share important information, even if it is not fully developed.
- Encourage managers to solicit employee ideas before decisions are made and provide feedback on the reasons for decisions after they are made.
- Use a checklist (such as NRR’s Integrated Quality Initiative checklist) to check the quality of safety evaluations, and use the information to further improve office processes. This empowers the staff and helps achieve better alignment between management expectations and staff performance.
- Communicate often to staff that staff are expected to challenge management.
- Use feedback to encourage staff to make their needs known, so that management can give them the tools to empower them to do their jobs.
- Let staff give their ideas first.

Horizontal Communication

- Promote informal peer discussions of issues.
- Establish “communities of practice” on the internal web where certain employee groups (i.e., inspectors) can informally discuss findings, questions, and issues.

Management by Walking Around

- Practice "management by walking around" regularly. This effective management style keeps staff and management expectations aligned.

Open Door Policy

- Periodically remind employees of NRC’s “open door” policy which encourages staff to meet with managers around the NRC.

Quality of Communication

- Focus on improving the content and delivery of messages with built-in feedback loops, and on getting information out to the staff before the information reaches them through the “rumor mill.” Also, increase opportunities for staff to say what’s on their minds.

Concurrence Process

- Encourage dissenting opinion “attachments” in Commission papers and other

documents that contribute to establishing policy.

- Encourage nonconcurrency when employees disagree with proposed positions.
- Bring all involved parties together to get agreement on the form and substance of NRC documents before they are drafted.

Communications Through Multiple Means

- Continue to provide communications through multiple means.

Management Attendance at Subordinate Meetings

- Encourage managers to attend subordinate staff meetings to build rapport, and to provide opportunities for employees to discuss their ideas directly with managers from all levels of the organization.

Internal Communications Surveys and Initiatives

- Organizations could consider pursuing their own internal communications surveys and initiatives, either on their own or with contract assistance. Outcomes might include management training based on findings. The goal is ultimately to share best practices among the staff.

Vertical Groups

- Establish vertical groups that represent diverse layers of management and staff, to achieve buy-in and complete important projects on time. Dedicated vertical groups tend to have a wider shared vision and are more likely to complete a project and provide better perspective of issues affecting each layer of implementation.

Joint Training

- Promote attendance at appropriate training by both managers and staff, to promote communications on issues.”

[This report was the overall NRC response to the 2002 OIG survey findings. In addition, some Office and Division responses were developed as well.]

2003 – ACRS Letter Report “Safety Culture,” dated July 16, 2003

“Although there are alternative definitions of safety culture, there is general agreement on the important attributes of safety culture. These include a questioning attitude, conservative decision-making, attention to detail, personal accountability, adherence to procedures, as well as the management traits and processes, such as leadership, conservative operating philosophy, effective training, and effective corrective and preventative action, that reinforce these attributes of the workforce.

The catalyst for the renewed industry-wide interest in the issue of safety culture and its impact on human performance was, of course, the recent incident at the Davis-Besse nuclear power plant. The NRC staff’s Lessons-Learned Task Force (LLTF) concluded that (Reference 6): the NRC failed to adequately review, assess, and followup on relevant operating experience, and the NRC failed to integrate known or available information into its assessments of Davis-Besse’s safety performance.

The LLTF has made numerous recommendations regarding the improvement of the NRC’s processes. Some of these are directly related to safety culture. For example,

recommendation 3.3.1(1) addresses the issue of “maintaining a questioning attitude in the conduct of inspection activities.” We agree with this recommendation. However, we believe that the agency’s safety culture is fundamentally sound. The NRC is focused on safety, and safety issues receive the attention warranted by their significance. At this point, it is useful to distinguish between the concepts of safety culture and safety climate. Safety culture refers to the enduring fundamental values of an organization. Safety climate is a temporal state, a snapshot in time of conditions that may influence safety culture attributes. Safety climate is subject to change and can vary throughout the organization.

The agency is already assessing its programs and policies, e.g., by assessing the effectiveness of various regulations. We believe that it would be useful for the NRC to undertake a self-assessment of its current safety climate. This evaluation should include aspects of safety culture such as conservative decision-making, willingness to raise and report issues, and questioning attitude in the presence of inconclusive evidence.

It is important to place the current emphasis on safety culture in perspective. The industry and NRC staff have mature programs to monitor reliability at the active equipment level. The reliability of passive equipment is monitored through inservice inspection and testing programs. Human reliability is monitored through simulator testing programs for control room crews. Awareness of safety culture adds to understanding and management of the deeper causes that shape human performance.”

2004 – Effectiveness Review Lessons Learned Task Force (ERLLTF) Report

“The predominate root cause for the ineffective corrective actions identified during this review is the lack of an agency corrective action program (CAP). An effective CAP ensures accountability and minimizes failure (recurrent issues). Establishing processes, effectiveness reviews, and a centralized tracking system will ensure consistency in the way tools are used to disposition, track, and closeout agency corrective actions. The agency does not have a CAP, or a similar program that is specifically established to correct the agency’s own problems. Instead, line organizations are generally assigned lead roles in evaluating and resolving problems, proposing and implementing corrective actions, and then tracking them to closure. This process, however, does not facilitate resolving problems to prevent recurrence, since there is less senior management oversight and no overall effectiveness review. The task force noted that when corrective actions are tracked at the Commission level, there is greater staff accountability, the tracking and status of items is much clearer, and all the documents are electronically available.”

[The ERLLTF was established as a result of the Davis-Besse reactor vessel head degradation event, to determine whether recommendations from previous lessons learned reviews had been adequately implemented. The actions taken in response to this report led to the implementation of the agency Lessons-Learned Program.]

2005 – Third OIG survey of NRC Safety Culture and Climate (OIG-06-A-08)

“When compared to the U.S. National Norm, the overall category profile for the NRC is statistically more favorable in 12 of the 16 categories. Similarly, when comparing the NRC survey scores with the U. S. Research and Development Norm, 14 categories score significantly above the norm. The most favorable difference is NRC Mission and

Strategic Plan, which is 28 points above the norm. As the score demonstrates in this comparison, NRC employees' opinions are generally more favorable than what would typically be observed among U.S. R&D populations.

The historical comparison of results from 2002 to 2005 looks quite positive, with 16 of 18 categories statistically more favorable than the 2002 NRC results. Communication, which was a high priority for the NRC since the last survey in 2002, is now the highest scoring category in this comparison, by 13 points. The NRC Mission and Strategic Plan also experienced a double-digit improvement of 11 points. This score suggests that the new NRC Strategic Plan initiative was well received. It is rare in [this survey contractor's] experience that scores improve to this degree between survey iterations.

Efforts to follow-up on the survey results from 2002 appear to be successful and should be implemented once again in 2005. Compared to 1998, the NRC has improved in 17 categories, from Organizational Change which is statistically more favorable in 2005 vs. 1998 by 21 points, to Differing Professional Opinions (DPO) Program, which has improved by 4 points.

Employees were also requested to identify their Job Category in the survey. Respondents could choose from senior management, middle management, line management, and nonsupervisory classifications. Differences exist between how higher levels of management responded to the survey questions versus responses from line management and nonsupervisory levels. This pattern is particularly common among government and private sector organizations alike. The senior management and middle management deviate by double-digit differences to the NRC Overall scores. While it is expected to see single-digit differences for executives and high levels of management, it is unusual to see this large a significant difference to the remaining employee population.

When comparing Job Function categories, there is very little difference. However, when responding to questions regarding sacrificing the quality of their work to cut cost, meet budget constraints or achieve a schedule or deadline, Administrative Support staff responded unfavorably to these questions. These unfavorable responses highlight conditions that impact a quality focus for this population.

Strengths of NRC's Safety Culture

1. The NRC is viewed by the employees interviewed and in focus groups as an Agency that is vital to our country's safety and security. Its image, while not understood or appreciated by all the American public, is very good when compared with other US Government agencies.
2. Many employees interviewed described their supervisors as being very communicative, exceptionally interested in their employees' well-being, supportive of training, and modeling the behaviors of effective leaders at the NRC. However, as evidenced in the "Opportunities for Improvement" section below, this is not true for all supervisors.

Opportunities for Improvement for NRC's Safety Culture

1. While communication efforts have improved since the 2002 survey, significant effort is still needed to ensure that employees are informed about areas that are critical from

an NRC perspective. Employees feel that there is more content available now than in 2002 to keep them informed of NRC-wide issues. However, employees feel that more communication vehicles do not necessarily translate into better Agency-wide communication.

2. Employees see a need for better communication at the local level, stressing the need for Branches and Sections to be kept well-informed about Office or Region issues.

Often, employees feel they are not kept up to speed on initiatives between Offices or within an Office that could impact the efficiency with which they accomplish their work.

3. Significant reservations still exist about the Differing Professional Opinions (DPO) program. Some employees feel comfortable raising an issue and going through the DPO process. However, a number of employees do not feel comfortable doing so, out of fear of retaliation.

4. The quality of supervisors across the NRC varies widely. The more ineffective supervisors across the NRC are poor communicators, rarely keeping their employees informed about matters affecting them. In addition, employees with poor supervisors do not receive the training or career development opportunities they desire. (The qualities of effective supervisors are addressed in Point 2 of the Strengths of the NRC's Safety Culture above.)

5. While employees feel they have a number of training opportunities available to them, they are often not able to take advantage of them. In some cases, this is due to a reduced travel budget, which limits the possibilities of receiving quality training at an offsite location. In other cases, workload prohibits employees from engaging in training.

6. Management of the NRC is visible to some employees, but not to most. Throughout our discussions—especially the focus groups—employees expressed a desire to have more contact with the senior leaders of the NRC.

7. Staffing levels and the resulting workload issues are a significant cause for concern among employees. Part of this appears to be a lack of prioritization, while some of it appears to be a lack of transferring knowledge when key employees retire.”

2006 – Management Directive 10.158, “NRC Non-Concurrence Process,” interim guidance issued via Yellow Announcement 06-0095

“Objectives:

To promote discussion and consideration of differing views on documents in the concurrence process.

To provide a non-concurrence option for individuals with concerns about documents in the concurrence process that they had a role in creating or reviewing.

To provide a uniform approach to processing non-concurrences.”

2006 – DPO Annual Program Review Report for 2006

“The DPO Program emphasizes that the NRC will not tolerate retaliation, harassment, or intimidation of employees who raise DPO concerns. No complaints of retaliation for engaging in the DPO process were substantiated [in 2006]. However, perceptions of retaliation can perpetuate negative feelings about the DPO Program and have a chilling effect on employees’ willingness to raise concerns.

In response to the 2005 DPO Program Review, the memorandum tasking office managers to disposition DPOs was modified to inform office managers to ensure that all proposed personnel actions involving DPO submitters (e.g., performance appraisals) are appropriately reviewed before the actions are taken to ensure that the proposed actions follow defined processes and are non-retaliatory. The office managers are to ensure that consideration is given to (1) the effect, if any, the personnel action may have on the organizational climate and (2) the specific actions, if any, that should be taken to minimize a potential chilling effect on the workforce's willingness to raise concerns. Given the importance of this issue, it should be included in the responsibilities outlined in the MD."

2006 – Office of Nuclear Reactor Regulation Safety Culture Task Force response to 2005 OIG Survey

"Overview of Agency-wide Recommendations

Empowerment:

Administrative staff input should be sought early in planning and executing work. Establish a process to include administrative staff during the initial planning stages of significant agency changes.

Training and Development:

Establish an agency-wide course for administrative staff which provides a general overview of the work that is most critical to the agency's mission.

Communication:

Provide opportunities for staff to interact more directly with its leaders. Encourage senior managers to actively communicate and promote two way feedback. Specifically, communication should be enhanced to facilitate the discussion of controversial issues when decisions made at the EDO/Commission levels are contrary to the staff recommendations.

For additional agency-wide consideration, the following provides a summary of recommendations within the DPO/non-concurrence category:

Encourage administrative staff to participate in Professional Development Center training to gain or enhance conflict resolution and negotiation skills. If the DPO process is appropriate for the resolution of administrative issues, communicate use of the DPO process for this purpose and highlight examples of administrative issues that have been resolved under the DPO process.

Establish an agency-wide Employee Concerns Program to allow for third party resolution of anonymous staff technical and program concerns.

Overview of NRR Recommendations

Communication:

Schedule routine meetings for secretaries to share best practices, provide feedback, and to discuss topics of interest.

Provide opportunities to facilitate face-to-face communication between the decision makers and the cognizant technical expert(s) when an NRR management decision is made contrary to that of its staff experts.

Arrange annual seminars for NRR supervisors and team leaders (i.e Branch Chief and Team Leader seminars) to share best practices, to address communication gaps between management and staff, and to review case studies on methods to enhance effectiveness of face-to-face communication with the staff.

Training and Development:

Communicate NRR's commitment to the recruitment of secretaries to administrative staff.

Performance Management:

Senior management should routinely convey expectations to supervisors to ensure that staff receive meaningful feedback on their performance.

Require that supervisors annually take the "Performance Appraisal Refresher Training."

In ADM-503, "New Hire Orientation" ensure that new employees are instructed about performance management and expectations of supervisors.

DPO/Nonconcurrency:

Senior management should communicate expectations associated with the request for additional information (RAI) process.

Assess the need for an NRR nonconcurrency Office Instruction, apart from ADM-200, "Delegation of Signature Authority" after the agency-wide nonconcurrency process has been piloted.

Continuous Improvement:

Routinely communicate the status of the Corrective Action Program (CAP) to NRR staff.

Establish and communicate the process to capture critical knowledge from a subject matter expert.

Conduct focus groups of Division staff to determine how effective the safety culture recommendations have been in addressing the staff's safety culture concerns.

For awareness, the SCTF Team Leader coordinated with managers and staff who would be assigned as a lead to implement recommendations within NRR.

NRR Best Management Practices

Enclosure 4 captures useful insights and best practices that should be considered for implementation through the development of Division-specific plans. For example:

- Supervisors (including team leaders) should routinely solicit input from staff within their branch regarding the need and frequency for branch and/or one-on-one meetings with staff.
- Supervisors should establish informal/formal meetings outside of the appraisal discussions to discuss performance (quarterly progress meetings). Focus the discussion on an employee's strengths and areas for improvement.
- Supervisors should document feedback provided to each employee during the mid-year discussions."

2006 – Office of Nuclear Material Safety and Safeguards (NMSS) Policy and Procedure 1-87, rev. 1 “Internal Communications”

“...the top five areas for improvement in day-to-day communications within NMSS... are: (1) improving communications skills; (2) improving meetings; (3) dealing with e-mail overload; (4) defining the appropriate context for communications; and (5) improving the communication of work assignments.”

[Improving internal communications is a recurring theme of internal surveys and self-assessments. This document is just one example, among many, of one Office's initiative in this area.]

2006 – ASLPB Decision on the Early Site Permit for Clinton ESP Site, dated Dec 28, 2006

“In examining the Staff's portion of the record, we found a plethora of instances where the Staff's conclusions could only be characterized as conclusory.

... the Draft SER ... failed, in a large number of instances, to logically connect facts to conclusions.

[Following the receipt of additional information from the Staff,] there remained numerous instances where it failed to set out its logic leading from recited facts to recited conclusions.

... the Staff's logic and stated facts appeared inadequate to make the required determination that its “review was sufficient” to support the required findings.”

[In this ASLPB Decision, the Board documented its initial concern with the adequacy of the staff's technical basis for approving the Early Site Permit.]

2007 – Best Places to Work in the Federal Government, Survey and Analysis by the Partnership for Public Service and American University's Institute for the Study of Public Policy Implementation (ISPPi)

“Results: NRC ranked #1 based on an overall index score of 76.2 (+1.9% change from its 2005 score).

One of the key questions that underpins all of the findings is, “What drives worker engagement?” The 2007 results show that employee satisfaction is driven primarily by three workplace categories — effective leadership, the match between employee skills and the mission of the organization, and work/life balance.

The highest-scoring Best in Class workplace categories are, in order, employee skills/mission match, teamwork, pay and benefits, and work/life balance.”

2007 – Synthesis of Issues Addressed in the Office Action Plans Responding to the NRC 2005 [OIG] Safety Culture and Climate Survey conveyed by memo from M. Johnson dated March 27, 2007

“Recommendations

Four broad recommendations are included in this report:

1. Explore ways to ensure agency wide management excellence and leadership at all levels.
2. Explore ways to create a stable work environment that fosters organizational learning, empowerment, and innovation and ensures management stability.
3. Foster internal non-hierarchical, collaborative communication opportunities that promote a pattern of professional staff-management interaction and emphasize the importance of understanding others before acting.
4. Examine ways to improve the consistency and clarity of the NRC performance management process.”

2007 – Union of Concerned Scientists report “Nuclear Power in a Warming World,” dated December 2007

“The most significant barrier to consistently effective NRC oversight is a poor “safety culture” at the agency itself. The poor safety culture at the NRC manifests itself in several ways. The agency has failed to implement its own findings on how to avoid safety problems at U.S. reactors. It has failed to enforce its own regulations, with the result that safety problems have remained unresolved for years at reactors that have continued to operate. And it has inappropriately emphasized adhering to schedules rather than ensuring safety. A significant number of NRC staff members have reported feeling unable to raise safety concerns without fear of retaliation, and a large percentage of those staff members say they have suffered harassment or intimidation.”

2007 – Issuance of Yellow Announcement 2007-27 implementing the Open Collaborative Working Environment (OCWE) initiative

“To successfully meet its regulatory responsibilities, the NRC must ensure that the decision-making process considers all points of view and that the organizational climate promotes open discussion.”

2008 - Commissioner Lyons’ speech at the 2008 Regulatory Information Conference

“For me, safety culture has a lot to do with every employee being *encouraged* to (not just free to) express his or her views, particularly when that view is in the minority. It is also imperative that each employee feels safe, without fear of retribution, to raise concerns.

Each employee also needs to have the confidence that his or her concerns will be evaluated. I believe the NRC must set the example in this regard, and I strongly support our current Open and Collaborative Working Environment initiative. I encourage you to visit our public web site to learn more about what we are doing.

The fundamental importance of safety culture was recognized by Admiral H. G. Rickover many years ago, before the term was ever coined. He said:

One must create the ability in his staff to generate clear, forceful arguments for opposing viewpoints as well as for their own. Open discussions and disagreements must be encouraged, so that all sides of an issue will be fully explored.

As usual, the admiral succinctly and directly hit upon the heart of the matter. I also noted with great interest and support that within the past few years, the Office of Personnel Management (OPM) re-wrote the definition of the Senior Executive Service “Conflict Management” competency to include, “encourages creative tension and differences of opinions.” This shift in approach can make a significant positive difference and is aligned with how I believe the NRC should set the standard on safety culture. Getting all views out on the table is one aspect of asking the “tough questions.” Once all the views are on the table, a manager is far better equipped to make an informed decision. I believe that the Commission itself has greatly benefitted from staff recommendations that articulate all sides of an issue, including diverse and sometimes opposing views.

Safety culture also involves designing organizational processes that can ferret out small problems early, before they grow in significance. For problems that have happened before, both the NRC and industry should utilize robust operating experience programs and institutionalize lessons learned, and both the NRC and industry must remain committed to the effectiveness of these programs. To address future problems, we must maintain aggressively questioning attitudes and continue to ask, “What could go wrong?”

2008 – James Ellis, CEO INPO, speech at RIC 2008 (included here because his message was directed to both industry and NRC members of the audience)

“... from nearly 29 years of witnessing and evaluating nuclear cultures that span a wide range of performance, we at INPO can safely say that these [following] recommendations will help build and sustain a strong focus on nuclear safety:

First, constantly reinforce safety culture. Never take safety culture for granted or assume that it is positive or someone else’s job. Talk about it, grab and exploit every teaching opportunity and engage people in discussions about safety culture or, just as importantly, the values, standards and principles that contribute to it. As performance improves, reinforce and reward the successes even more to guard against the ever present danger of complacency.

Frequently assess or measure the safety culture in your organization, not just directly but indirectly in the trends of minor missteps that can portend larger falls. The tools are available. The absolute value that results from these assessments is not as important

as the direction of the arrow over time. Include in these assessments as often as you can observations performed by someone you trust who is not part of your culture.

Make sure your organization clearly understands what constitutes a strong nuclear safety culture and their role in its promotion. The eight principles I mentioned earlier offer a proven definition and provide scope for nuclear safety culture discussions with your team.

Finally recognize that safety culture is not an all or nothing concept. It is not either present or not present. Every organization, from the best to the ones that struggle, has strengths and weaknesses in the safety culture arena. Safety culture is a constantly moving continuum in need of daily leadership reinforcement. As such, get the subject out in the open and talk about it, with your staff, with your industry colleagues, with your own oversight organizations and, yes, even with the NRC and INPO.”

2008 - Commissioner Lyons speech at the Presentation of the NRC Model of the Davis-Besse Nuclear Plant Reactor Vessel Head Degradation September 2008

“Today we dedicate ... a memorial ... that I hope will continue to remind both our staff and our licensees not only of the vulnerability of technology to degradation, but also the vulnerability of people to complacency.

Our integrity as regulators must guide our daily actions. Those actions must be founded upon a never-ending cycle of questioning, listening, and judging. To stop this cycle would be the first step toward complacency. As regulators we serve the public best when our questions are probing, when we fully hear and comprehend the answers that are provided, and when our judgments are fair, objective, and technically sound. Underlying all of our actions must be a deeply abiding respectfulness – internally among ourselves, externally toward our licensees and the public, and above all toward the technologies that we regulate.

Finally, we must be prepared to unflinchingly expose the truth, even when it hurts, and especially when we can learn from it. I believe former NRC Chairman Nils Diaz once summed it up very appropriately when he said “Regulation... does not rejoice in what is wrong, but rejoices with the truth.”

It is my fervent hope and high expectation that this model and display will remind us and those who follow us, licensee and regulator alike, that we must never stop questioning, never stop listening and comprehending, and never stop judging. We must constantly guard against complacency. Our nation expects no less.”

2008 – Union of Concerned Scientists document “Freedom to Speak? A Report Card on Federal Agency Media Policies,” dated October 16, 2008

“What We Found - Both good policy and good practice in the communication of scientific results to the media are achievable goals for federal agencies. Yet there is no consistency among agency policies, and the ability of government scientists to speak freely about their research depends on the agency that employs them.

For example, scientists at both scientific and regulatory agencies—such as the U.S. Geological Survey and the Nuclear Regulatory Commission, respectively—reported

broad freedom to communicate their findings and opinions. Other agencies, such as the Centers for Disease Control and Prevention, have set a high standard for clearly articulated policies that value scientific openness.

As a regulatory agency that deals with sensitive topics and information, the NRC deserves praise for the culture of openness it has fostered. According to survey respondents, NRC policies are applied consistently and do not compromise scientists' free speech. When disputes arise, employees may submit a Differing Professional Opinion, which initiates a formal process for resolving differences. To guard against complacency, we recommend the NRC's leaders issue statements reinforcing this culture of openness.

'Last year we had someone who disagreed with a technical finding, so [he] argued his viewpoint with superiors, and he was cited by the regional administration as an example to be followed. So management is behind this. They want to have us reach the truth.'
—Harold Gray, materials engineer, 26 years at the NRC “

2008 – Charter of the NRC Internal Safety Culture Task Force, dated October 24, 2008

“The overall objective of the internal safety culture task force is to define internal safety culture and provide recommendations to enhance NRC's internal safety culture. To support this objective, the task force will develop a definition and set of components to define the internal safety culture at NRC. This framework will be used as a baseline to conduct a gap analysis, consider agency best practices, and identify and assess potential initiatives for enhancing the internal safety culture.”

2008 – Results of the 2007 First Annual NRC Employee Survey (AES)

“Of the 3,600 permanent employees surveyed, 2,446 responded, for a 68% response rate. The results showed improvement for the NRC in 25 of the 33 areas that were addressed in the 2006 Government-wide Employee Satisfaction Survey. The 2006 Government-wide Employee Satisfaction Survey resulted in the NRC's ranking as the "Best Place to Work in the Federal Government.”

The largest gains in the 2007 AES compared to the 2006 Government-wide Employee Satisfaction Survey were in: Leaders Motivating their staff (+11%); Employee Empowerment (+9%); Respect for Leaders (+8%); Opportunities for Advancement (+8%); and, a Reasonable Workload (+7%).

Areas of focus for the NRC in 2008 will include: stressing communication at all levels; assessing developmental needs of the staff in a more pro-active manner; conveying performance standards with a greater degree of specificity; recognizing stellar performance in a more timely fashion; and conducting more leading and coaching seminars for managers, supervisors, and team leaders.”

[This survey was required for all agencies by OPM and is intended to be conducted every two years, alternating with another similar survey that will be used to rank federal agencies, i.e. the 'Best Places to Work.']

2008 – NRC Chairman Klein’s speech at the international Convention on Nuclear Safety

“We have also made improvements in our own [NRC] safety culture. In the fall of 2005, the NRC’s Inspector General, with the assistance of a contractor research firm, conducted the Safety Culture and Climate Survey to evaluate the NRC’s internal safety culture and compare the results with the 2002 survey and Government and national benchmarks. Compared to the 2002 survey, the NRC improved in essentially all areas, with the largest gains realized in communication, mission and strategic planning, employee engagement, recruiting, developing and retaining staff, and management leadership. Areas we still need to work on include: workload and stress, knowledge transfer, and the use what the NRC calls the Differing Professional Opinions Program. I have already discussed some of our activities in knowledge transfer.

We have also increased our efforts to maintain an open, collaborative working environment that encourages all employees and contractors to promptly raise differing views without fear of retaliation. For example, our new non-concurrence process is designed to promote discussion and consideration of differing views on documents in the concurrence process before the prevailing staff view is fully developed, or management or policy decisions are made. This process complements the Differing Professional Opinions Program, a formal process that allows all employees and contractors to have their differing views on established, mission-related issues considered by the highest level managers in their organizations. And of course, we have an open door policy by which employees can raise their concerns with any level of management at any time.”

2009 – NRC Chairman Klein’s speech at the Regulatory Information Conference

“One way to combat complacency is to have a clear plan for promoting safety culture. The NRC recognizes that implementing the day-to-day details of safety culture is the responsibility of the licensees. Nevertheless, the agency is taking a more active role. The staff is working at the Commission’s direction to develop a safety culture policy statement that better articulates our safety culture expectations for all licensees and certificate holders, and addresses the unique aspects of security.

Let me emphasize, as I did at our first public workshop on this subject, that we are not doing this to point fingers. The NRC is devoted to improving its own internal safety culture as well, and we are expecting a Task Force Report to be given to the Commission on April 28. In addition, the Office of the Inspector General is currently undertaking its fourth safety culture survey of the NRC. Overall, I think while both the NRC and industry have a strong foundation, there is room for improvement. And there are still things I see here and there that resemble complacency. One way to help avoid complacency is through communication and sharing knowledge.”

2009 – NRC Commissioner Jaczko’s speech at the Regulatory Information Conference

“A broader solution to the fight against complacency is to focus on safety culture and I am glad to see the Commission making progress. This is a topic I have been focused on for a long time. In fact, regular RIC attendees may note that it has featured prominently in all four of my RIC speeches, including the first one in 2005 when I called for the integration of security into the safety culture concept.

... The NRC has a number of initiatives underway to strengthen this type of [safety] culture. We have added attributes of safety culture to the ROP, and more broadly, we are now developing a policy statement that will lay out our expectations for a healthy safety and security culture at all NRC licensees. The staff has worked with a broad group of stakeholders on this, as well as on the internal NRC safety culture initiative I strongly believe in, and I am pleased with the progress so far. These safety culture exercises will come together to give us a definitive understanding of what the NRC should be doing in the area of safety culture oversight.”

2009 – NRC Commissioner Svinicki’s speech at the Regulatory Information Conference

“Our differences are our strengths....”

History of DPO/DPV Programs

Since 1976, the NRC has provided ways for employees to bring their differing professional views to the attention of the highest levels of management.

- 1978 NRC Chairman Hendrie issued a request to all NRC employees to assist in improving communications between all levels within NRC – to make “open door” policy more of a reality both in concept and in practice within NRC. NUREG-0500, “A Survey of Policies and Procedures Applicable to the Expression of Differing Professional Opinions.”
- 1979 NUREG-0567, “Proposed NRC Policy and Procedures for Differing Professional Opinions.”
- 1980 NRC Manual Chapter 4125 was published, outlining and describing the NRC’s Differing Professional Opinions policy.
- 1985 Manual Chapter 4125 was revised based on the evaluation and report of a Special Review Panel.
- 1987 A Special Review Panel examined this policy and published it’s findings and recommendations as NUREG-1290.
- 1988 Manual Chapter 4125, Differing Professional Views or Opinions (DPVs/DPOs), was revised based on the findings and recommendations of the 1987 Special Review Panel.
- 1988 Manual Chapter 4126, Open Door Policy was published as a result the findings and recommendations of the 1987 Special Review Panel.
- 1990 A Special Review Panel examined this policy and published it’s findings and recommendations as NUREG-1414.
- 1991 Management Directive 6.2, Differing Professional Views or Opinions was issued as a replacement for Manual Chapter 4125.
- 1994 A Special Review Panel examined this policy and published it’s findings and recommendations as NUREG-1518.
- 1999 MD 10.159, “Differing Professional Views or Opinions.”
- 2000 OIG audit of DPO/DPV program (OIG-00-A-7)
- 2002 A Special Review Panel (SRP) examined this policy and published it’s findings and recommendations as NUREG-1763.
- 2004 MD 10.159, “The NRC Differing Professional Opinions Program,” issued as a result of SRP findings and recommendations (published in NUREG-1763, “Differing Professional Views or Opinions”), and 2000 OIG Audit

DPO/DPV Background

The U.S. Nuclear Regulatory Commission (NRC) must often make difficult decisions on the regulation of nuclear power and the civilian uses of nuclear materials—decisions that can have profound impacts on public health and safety and the environment. In making important decisions, the Commission must have the best information available.

To successfully meet its regulatory responsibilities, the agency must ensure that the decision-making process considers all points of view and that the organizational climate promotes open discussion.

The NRC Open Door Policy (first communicated to agency employees in 1976) and the NRC Differing Professional Opinions Policy (formally established in 1980) illustrate the NRC's commitment to the free and open discussion of professional views. These policies permit employees at all levels to provide professional views on virtually all matters pertaining to the agency's mission.

In 1987, a Commission-appointed panel conducted an extensive review of these policies. As a result of the panel's findings and recommendations (published in NUREG-1290, "Differing Professional Opinions"), the agency issued Inspection Manual Chapter 4125, "Differing Professional Views or Opinions," and Inspection Manual Chapter 4126, "Open Door Policy," on September 30, 1988.

In December 1989, the Executive Director for Operations (EDO) appointed a special review panel (SRP) to assess the revised process for raising differing views and opinions, including (1) how well employees understand the process, (2) its effectiveness, and (3) the organizational climate for having such views aired and properly decided. The agency published the panel's findings in NUREG-1414, "Differing Professional Views or Opinions." As a result of the panel's findings and the conversion of policy into directives, the NRC issued Management Directive (MD) 10.159, "Differing Professional Views or Opinions," and MD 10.160, "Open Door Policy," on March 20, 1991.

In July 1994, the EDO appointed an SRP to assess the Differing Professional View (DPV) and Differing Professional Opinions (DPO) processes. The agency published the findings of this panel in NUREG-1518, "Differing Professional Views or Opinions." The panel recommended eliminating standing DPV panels, instead forming panels on an ad hoc basis depending on the technical issue, and changing the DPO process to require the establishment of ad hoc review panels similar to those recommended for the DPV process.

In March 2001, the EDO established an SRP to evaluate the DPV/DPO process and to make recommendations on the interim policy guidance issued in response to a September 2000 audit by the Office of the Inspector General. As a result of this panel's findings and recommendations (published in NUREG-1763, "Differing Professional Views or Opinions"), the agency issued a revised MD 10.159 on May 16, 2004. The revised DPO Program established an agency-level program manager, eliminated the DPV step, simplified the appeal step, set a new timeliness goal, defined roles and responsibilities for communication points in the process, and required informal discussions before an employee submits a DPO (or justification for why the employee cannot discuss the issues with his or her supervisor).

Comparative Listing of OIG Safety Culture and Climate Survey (SCCS) results (1998, 2002, and 2005)

This comparative was drawn solely from the high level summary statements made in each of the SCCS final reports. These summary statements are highlights written by the survey contractor based on their evaluation of what messages would be most helpful to the NRC. Thus, they do not necessarily convey important insights that can be drawn from a more detailed examination of the specific questionnaire results.

The categories used for this comparative listing were created for this purpose only and have no relationship to any categorization within the actual reports. The reader should feel free to recategorize as desired and to examine the actual OIG reports for more specific insights (go to <http://www.nrc.gov/reading-rm/doc-collections/insp-gen/>).

Strengths of NRC's Safety Culture as noted by OIG:

1998

The workforce is very dedicated to NRC's mission. Employees at all levels recognize their colleagues are very conscientious and dedicated to the safety mission of the NRC. The NRC, as an agency, is committed to protecting public safety.

2002

The workforce is dedicated to NRC's safety mission. The NRC, as an agency, is committed to protecting public safety. Following the September 11th incident, employees sense a rededication to the goals and mission of the NRC and express a rejuvenated sense of pride as NRC employees.

2005

The NRC is viewed by the employees interviewed and in focus groups as an Agency that is vital to our country's safety and security. Its image, while not understood or appreciated by all the American public, is very good when compared with other US Government agencies.

Many employees interviewed described their supervisors as being very communicative, exceptionally interested in their employees' well-being, supportive of training, and modeling the behaviors of effective leaders at the NRC. However, as evidenced in the "Opportunities for Improvement" section below, this is not true for all supervisors.

Opportunities for Improvement as noted by OIG SCCS results:

General Category	1998	2002	2005
Internal Communications	<p>Employees report high levels of uncertainty and confusion regarding new directions in regulatory practices and impending changes facing the agency, e.g. "risk-informed" regulation.</p> <p>The communications between various units can be difficult. Communications within the branches/sections is often cited as very good, but perhaps at the expense of inter-divisional dialogues.</p>	<p>Employees tend to be confused regarding an overall agency mission.</p>	<p>While communication efforts have improved since the 2002 survey, significant effort is still needed to ensure that employees are informed about areas that are critical from an NRC perspective. Employees feel that there is more content available now than in 2002 to keep them informed of NRC-wide issues. However, employees feel that more communication vehicles do not necessarily translate into better Agency-wide communication.</p> <p>Employees see a need for better communication at the local level, stressing the need for Branches and Sections to be kept well-informed about Office or Region issues. Often, employees feel they are not kept up to speed on initiatives between Offices or within an Office that could impact the efficiency with which they accomplish their work.</p> <p>Management of the NRC is visible to some employees, but not to most. Throughout our discussions—especially the focus groups—employees expressed a desire to have more contact with the senior leaders of the NRC.</p>
Staffing/HR/KM	<p>Employees are experiencing increasing workloads, decreasing staffing levels and little prioritization by management</p> <p>NRC's technical prowess will be significantly impaired due to retirements. Very little "new blood" is coming into the agency with technical expertise.</p> <p>NRC staff perceive fewer career opportunities as the industry declines and agency budgets shrink.</p>	<p>Career advancement opportunities are seen as limited throughout the NRC and concern is expressed that the most competent employees are not being promoted.</p> <p>NRC employees are concerned about management succession planning stating that the agency has not realistically prepared to recover from the exodus of its aging workforce.</p>	<p>Staffing levels and the resulting workload issues are a significant cause for concern among employees. Part of this appears to be a lack of prioritization, while some of it appears to be a lack of transferring knowledge when key employees retire.</p>
Supervision and Leadership Skills	<p>Many employees say there is fear among the staff of making a mistake, leading to a growing "cya" mentality. Employees report that communicating problems results in a "shoot-the-messenger" syndrome.</p>		<p>The quality of supervisors across the NRC varies widely. The more ineffective supervisors across the NRC are poor communicators, rarely keeping their employees informed about matters affecting them. In addition, employees</p>

	<p>Many managers lack broad management skills and training. Additional training is needed for managers to become better leaders according to staff.</p> <p>Employees describe the NRC as having a very hierarchical, top-down management approach. Employees report increasing levels of micro-management. They feel this reflects a lack of respect and trust in their depth of knowledge and expertise.</p>		<p>with poor supervisors do not receive the training or career development opportunities they desire.</p>
Integrity Independence Differing Views		<p>Concern that NRC is becoming influenced by private industry and its power to regulate is diminishing.</p>	<p>Significant reservations still exist about the Differing Professional Opinions (DPO) program. Some employees feel comfortable raising an issue and going through the DPO process. However, a number of employees do not feel comfortable doing so, out of fear of retaliation.</p>
Administration	<p>There is a perception that too much time is spent on paperwork that may not contribute to the safety mission of the organization.</p>	<p>Concerns with operational efficiency are expressed: excessive paperwork, arduous proprietary software packages, staffing issues leading to excessive workload.</p>	
Training	<p>Technical training was traditionally a strength, but the funding is perceived as dwindling.</p>	<p>Safety training is considered to be based on outdated scenarios that leave the security of the nuclear sites within the United States vulnerable to sabotage.</p> <p>NRC employees tend to perceive training and development programs for new NRC employees as inadequate and ineffective in producing a significantly skilled workforce for the future.</p>	<p>While employees feel they have a number of training opportunities available to them, they are often not able to take advantage of them. In some cases, this is due to a reduced travel budget, which limits the possibilities of receiving quality training at an offsite location. In other cases, workload prohibits employees from engaging in training.</p>
Consistency	<p>Employees complain about the lack of continuity in how the regions are being managed.</p>	<p>Agreement among the NRC staff that headquarters is not disseminating information in an effective manner as well as equitably among the regions.</p>	
External Communication	<p>The NRC, in the employees' eyes, has not defended itself well in the public arenas.</p>		
Work-Life Balance		<p>Many NRC employees perceive a compromise of the "safety culture" as an effect of job-stress and poor work-life balance consideration by NRC management.</p>	

C

Proposed Internal Safety Culture Characteristics and Aspects

To illustrate how concepts in the characteristics apply internally, the Task Force has developed examples (called “aspects”) to illustrate how NRC could demonstrate support for each characteristic.

Safety Conscious Work Environment/Open Collaborative Working Environment – NRC management maintains a safety conscious work environment/open collaborative working environment¹ in which all employees feel free to raise concerns without fear of retaliation.

NRC Management consistently reinforces an open, collaborative working environment that encourages employees to promptly voice differing views without fear of retaliation. All employees have the right and responsibility to raise mission-related concerns through available means, such as informal discussions, feedback programs, self-assessments, the Open Door Policy, the Non-Concurrence Process, the Differing Professional Opinions Program, and other internal and external avenues. All employees are effectively trained that retaliation for raising such concerns is a violation of agency policy, may be a violation of law, and will not be tolerated. Assertions of retaliation, including harassment, intimidation, and discrimination, are investigated by NRC management and, if verified, corrective actions are taken in a timely manner.

Behaviors encourage a free flow of information and healthy probing of technical and non-technical positions to help strengthen the agencies decisions. These behaviors include promptly speaking up, providing complete, accurate, and forthright information, listening to differing views fairly, and treating each other with respect. Concerns are responded to, at all levels, in an open, honest, objective, and non-defensive manner and prompt and committed actions when warranted are taken.

NRC Management considers the potential chilling effects of actions that may reasonably discourage the raising of concerns and takes actions to mitigate those effects when appropriate. Actions that could have a chilling effect include, adverse personnel actions (e.g., performance evaluations, reduction in pay or grade, removal, suspension, or reassignments). Instances of retaliation, whether perceived or actual, are not tolerated.

Problem Identification and Evaluation – the NRC ensures that issues potentially impacting safety or security are promptly identified and fully evaluated, commensurate with their significance.

Processes used to identify and evaluate issues are designed with a low threshold and wide scope to ensure employees raising mission-related issues do so without undue concern of the issue’s significance. Such processes include raising issues to management, feedback programs, self- and independent assessments, corrective action programs, oversight groups, or

¹ For licensees, the NRC has traditionally used the term “safety-conscious work environment.” Internally, the NRC has expanded this concept to include an “open, collaborative working environment” to be meaningful to every NRC employee. The NRC also includes a clause in cost-reimbursement solicitations and contracts for professional services that provides a procedure for the expression and resolution of Differing Professional Opinions of health and safety concerns related to the contract.

any alternative processes for raising concerns or resolving differing professional views. Employees are knowledgeable of and have access to the processes, have confidence in their effectiveness, and identify issues completely, accurately, and in a timely manner commensurate with their significance.

Alternative processes for raising mission-related issues and resolving differing views exist (i.e., processes for identifying problems, raising concerns or resolving differing views that are alternatives to line management), and include provisions for raising issues in confidence, and are independent, in the sense that the program does not report to those who would in the normal course of activities be responsible for addressing the issue raised.

The NRC systematically collects internal and external operating experience information, such as vendor recommendations, industry and regulatory information, information collected from benchmarking or inspection activities, and lessons learned to identify applicable current or potential performance issues. Similarly, the NRC periodically conducts self- and independent assessments of its activities, policies, programs and practices at a frequency that ensures their continued effectiveness. In addition, the assessments are objective, of sufficient depth, comprehensive, and self-critical, commensurate with the risk-significance of the processes being assessed.

The NRC thoroughly, accurately, and in a timely manner evaluates concerns identified from any source commensurate with their safety/security significance. Problems, issues and conditions are properly classified and prioritized. Causes and contributors to the problems are accurately identified and their extent understood. Additionally, issues are tracked and periodically assessed for trends to identify process, program, cultural/behavioral, and other common-cause problems for evaluation.

Problem Resolution – the NRC ensures that actions are taken to correct safety and security issues in a timely manner, commensurate with their significance.

NRC management ensures timely actions are initiated to address safety and security issues and adverse trends commensurate with their safety significance and complexity. Issues are resolved effectively and, for significant problems, the actions taken to resolve the problem prevents their reoccurrence. The NRC evaluates and monitors the effectiveness of problem resolutions, commensurate with their risk-significance.

Work Practices - NRC employees demonstrate ownership for the safety and security strategic goals and strive to meet high standards in their day-to-day work activities.

NRC employees perform their work to high standards with attention to detail and an understanding that their first priority is public health and safety and common defense and security. NRC employees do not proceed in the face of uncertainty if there is an impact on the safety and security strategic goals. NRC employees demonstrate high standards of personal behavior by demonstrating integrity and ethical behavior in every activity, showing respect for individuals' roles and viewpoints, and remaining fit for duty.

NRC employees strive to promote openness by communicating completely and documenting thoroughly their actions, decisions and recommendations, and the bases for the actions, decisions and recommendations. NRC employees inform their decisions, actions and recommendations with state-of-the-art research and best practices to ensure that their work meets the highest professional standards. NRC employees actively seek and respectfully

internalize constructive feedback from experts, peers, subordinates, managers, and internal and external stakeholders. Constructive disagreement is accepted as the cost of continuous improvement, addressed in the near-term, and resolved in an open, collaborative work environment. NRC employees are committed to achieving excellence in every activity and take personal responsibility for identifying and suggesting improvements in their day-to-day work and in agency activities.

Work Planning and Control – the NRC’s processes for planning and controlling work ensure that individuals, supervisors, and work groups communicate, coordinate, and execute their work activities in a manner that supports safety and security.

NRC employees plan and control their work to reflect the appropriate priority for safety and security while promoting activity accomplishment in an effective, efficient, and timely manner. Work planning encompasses all inputs necessary to ensure that safety and security goals are achieved. Planning includes communication, coordination, and collaboration of activities with intra- and interdepartmental groups. Interfaces with internal and external stakeholders are maintained and utilized. NRC employees remain vigilant of all work activities under their purview, set clear expectations for high performance, and are accessible and approachable. Problems are detected and corrected before they escalate.

Accountability – the NRC ensures that roles, responsibilities and authorities in support of the strategic goals of safety and security are clearly defined and reinforced.

NRC employees are provided the appropriate authority to conduct their activities and understand how their roles, responsibilities, and behavior support the mission, the strategic goals of safety and security, and the goals and objectives of their organization. Programs, processes, procedures, rewards and sanctions, opportunities for career progression, and organizational interfaces are clearly defined and aligned with agency policies, which reflect the strategic goals of safety and security as an overriding priority.

Behaviors that reflect support of the NRC’s goals of safety and security as an overriding priority are communicated and reinforced in periodic interactions with personnel at all levels of the organization, such that all understand that public health and safety and common defense are of the highest priority. The NRC promotes focused attention on safety and security matters and individual accountability of those engaged in regulatory activities, and encourages employees to demonstrate the agency’s values in their conduct and interactions, to show respect for individuals’ roles, diversity and other viewpoints, and to foster an inclusive environment.

NRC management ensures that employees understand how their performance is evaluated; performance appraisals are conducted consistently; and performance problems are handled in accordance with the agency policy and guidance. Appraisals and the reward/award process should reward focus on safety and differing opinions. The performance appraisal process is designed so that it can be effectively implemented to provide accurate and meaningful feedback on personnel performance. NRC management provides employees with frequent and candid feedback on performance in addition to formal performance appraisals. Performance appraisals are aligned with safety and security goals and consistent with agency safety culture expectations.

Resources – the NRC ensures that personnel, equipment, procedures, and other resources are available and adequate to ensure the strategic goals of safety and security.

NRC relies on research, sound science, and state-of-the-art methods to establish the framework of rules, regulatory guidance, and standard review plans that underlie the agency's licensing and regulatory programs. Therefore, NRC efficiently manages its resources to sustain sufficient numbers of qualified personnel and to provide adequate facilities and equipment to support the agency's mission. NRC strives to bring together and retain the right mix of managers, supervisors, technical and support staff and contractors necessary to make well-reasoned decisions, complete work without relying on excessive overtime, and implement improvement plans in a timely manner. Personnel are selected and trained to ensure job-specific competencies, and encouraged to pursue career advancement opportunities. NRC's robust training program reinforces that achieving the agency's safety and security goals is of the highest priority. The NRC has implemented and supports a formal Knowledge Management program.

NRC provides and continuously evaluates the adequacy of work space and equipment available to its personnel. The NRC maintains, upgrades, or replaces critical infrastructure to support effective job performance, training, emergency operations, communication and incident response operations. The NRC ensures that adequate resources are always available to effectively respond to events at licensed facilities and other events of national interest when appropriate.

Continuous Learning Environment – the NRC maintains a continuous learning environment in which opportunities to improve activities related to the strategic goals of safety and security are sought out and implemented.

The NRC encourages and ensures that NRC employees develop and maintain current their knowledge, skills, and abilities; remain knowledgeable of industry standards and innovative practices; and identify opportunities to improve the performance of tasks to support the agency's mission. Effort is made to create a formalized process to capture and record the knowledge and experience of retiring or departing personnel for current and future agency needs in support of the safety and security goals.

The NRC seeks out and evaluates new information, ideas, and recommendations for improvements and encourages individuals to do the same. Changes to standards, programs, processes, and procedures are evaluated in order to continuously improve the performance of tasks. Leadership potential is identified and developed, as appropriate, and managers and supervisors are qualified for their leadership responsibilities. Managers and supervisors are trained on and exhibit technical/programmatic competency, communication skills, and people management and team-building skills.

NRC employees work with international counterparts to exchange information, expertise, operating experience, and ongoing research to recognize and respond to emerging technical issues and to promote best practices. NRC employees participate in the development and evaluation of international standards to ensure they are soundly based and determine whether substantial safety improvements can be identified and incorporated domestically. NRC employees evaluate domestic and international operating events and trends for risk significance and generic applicability in order to improve NRC decision-making and programs. NRC employees seek improvement of the NRC's regulatory programs and apply safety-focused research to anticipate and resolve safety issues.

Organizational Decision-Making – significant organizational decisions at the NRC are made in a manner that supports the strategic goals of safety and security.

At the NRC, major programs are coordinated and conducted in an integrated manner which supports the objectives of the strategic goals of safety and security. Activities and decisions related to mission functions are accomplished in a manner that does not undermine either. There are formally defined roles, responsibilities and authorities for decisions affecting nuclear safety and security, and NRC management ensure these roles are implemented as intended. The NRC places great importance on the value of differing views, and NRC management are encouraged to actively seek and consider all input on decisions as well as solicit feedback on the outcomes of decisions.

The bases for significant decisions at the NRC support the goals of safety or security. The NRC strives to consistently communicate in an open and timely manner the bases for decisions made at all levels of agency activity. These levels include coordination and collaboration with other domestic and international organizations, actions involving external stakeholders and the general public, organizational and programmatic decisions and matters affecting the agency, such as significant changes to programs, processes, and procedures, and interactions between NRC management and staff.

The NRC establishes and maintains stable and predictable regulatory programs and policies for all internal and external stakeholders, and verifies that all new regulatory initiatives adhere to these programs and policies. NRC management conduct effectiveness reviews of major decisions and organizational/programmatic changes to identify and correct possible unintended consequences and to determine how to improve future decisions. All NRC employees strive to develop, communicate and implement production, cost and schedule goals in a manner which demonstrates that the agency's goals of safety and security are an overriding priority.

D



Final Report

Focus Group Research For Internal Safety Culture



**Internal Safety Culture Task Force
Office of Enforcement
Nuclear Regulatory Commission**

Doug Coe - Task Force Leader

June Cai - Deputy Task Force Leader

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1.0 Executive Summary

The Nuclear Regulatory Commission (NRC) issued a Staff Requirements Memorandum (SRM), dated April 3, 2008, in which the staff was tasked with providing the Commission “*with a report outlining potential initiatives that could improve the agency's internal safety culture.*” This tasking was assigned to the Office of Enforcement (OE). OE established an Internal Safety Culture Task Force (ISCTF) with representatives from NRC headquarters offices and regions to respond to the Commission's tasking. The ISCTF identified a variety of methods to collect information relative to the Commission's direction (e.g., benchmarking, interviews, document review, focus groups). The ISCTF engaged HGM Management and Technologies, Inc. (HGM), a management and engineering consulting firm that provides organizational development services to the NRC. HGM worked collaboratively with the ISCTF to plan, design, develop, and implement the part of the data collection that would be achieved through the conduct of focus groups. The plan included a two-day Focus Group Moderators Training Course that was developed and delivered by the HGM Team for ISCTF members. The trained personnel were assigned as assistant moderators while HGM personnel functioned as lead moderators of the focus groups. Twenty (20) focus groups were conducted throughout Headquarters and all four Regional offices.

The focus group questions were developed to gather insights on areas important to safety culture, i.e., safety culture components proposed as part of the ISCTF's internal safety culture framework. The safety culture components were first developed and applied in the agency's reactor oversight process. Their descriptions were modified, as needed, to be more applicable to internal safety culture. The nine safety culture components are:

- Safety Conscious Work Environment
- Resources
- Continuous Learning Environment
- Problem Identification
- Problem Resolution
- Accountability
- Organizational Decision Making
- Work Practices
- Work Planning and Control

The focus group sessions resulted in the following key points.

- There is a sense of pride in their jobs and the work they contribute to the Agency.
- The Agency places a lot of emphasis on safety.
- There is an awareness of a positive safety culture within the Agency however there is room for improvement.
- There is a perception on the part of some that there may be retaliation within the Agency for raising differing views.
- There are concerns that the effectiveness and efficiency of first-line supervisors is compromised because this level of management changes positions frequently. Also, concerns were expressed that in some instances, supervisors lacked the technical expertise required to perform in the branch that they manage. Others lack people skills necessary to manage staff effectively.
- Concerns about management and staff accountability and the effectiveness of the performance evaluation system exist.

- There are adequate resources for training and development.
- The Commission provides adequate resources such as personnel, equipment, and procedures are available and adequate to assure the strategic goals of safety for the most part, but there is room for improvement.

The focus group participants also provided suggestions on ways to improve the organizational processes related to the internal safety cultures. These are outlined further in other sections of this report.

2.0 Methodology

2.1 Participant Selection Process

HGM conducted a total of 20 focus groups with approximately 153 employees of the NRC. Twelve focus groups, with an average of eight individuals in each group and totaling approximately 91 individuals, were conducted at NRC Headquarters. Two of the twelve, were comprised of supervisors. Two focus groups also, with an average of eight individuals each and totaling approximately 62 individuals, were conducted in each of the four regions. The participants represented various functional areas and ranged across staff and supervisory levels. Ten focus groups consisted of technical employees; nine were non-technical employees, and one was a mix of technical and non-technical employees – a total of 20 focus groups. HGM conducted these meetings to assess whether these were existing conditions that would challenge the current establishment of the safety conscious work environment at NRC.

Participants from the NRC’s Headquarters were randomly selected from a list of all Headquarters personnel with associated classification categories such as grade, series, office, and tenure. The focus group composition was based on a number of demographic variables including discipline, tenure, and grade level. Targeting these variables ensured a representative sample across headquarters. To support objectivity in selection, individuals meeting the targeted demographics were randomly selected, and invitations were extended for voluntary participation.

For the focus groups in the regions, ISCTF representatives selected a random group of participants using a similar approach. In addition, two ISCTF representatives conducted a small focus group with NRC’s Technical Training Center staff.

* Group participants: 80 were technical and 73 were non-technical. Two groups (16) participants were Supervisory/ Management.

2.2 Implementation of Focus Groups

The HGM team worked closely with the ISCTF to perform all aspects of the project. Once the selections of the participants were completed, the HGM team and the ISCTF members were assigned to each focus group as follows:

- Moderator- HGM member
- Co-Moderator- NRC ISCTF member
- Note taker- HGM member

For each session, the moderators provided the focus groups with the Internal Safety Culture definition¹ and informed them that they would be asked questions related to “areas important to safety culture” within the agency. The moderators emphasized that everyone, no matter their function or organizational level, contributed to the agency’s mission², and its safety and security strategic goals³. For each focus group the moderator provided handouts for the participants.

These included:

1. Mission/Goal Statement (provided in Appendix 1)
2. Ground Rules (provided in Appendix 2)

The focus group sessions were conducted for two (2) hours, and in all instances participants were asked the same set of questions (provided in Appendix 3). Some participants questioned the purpose of the focus group or the objective of the project. Their questions were answered by the NRC co-moderator. The focus group data was recorded by the note-taker and the co-moderator for each group.

3.0 Data Analysis

HGM performed qualitative analyses on the data gathered from the 20 focus groups with a total of approximately 153 participants. Focus groups were comprised of a range of staff across disciplines, tenure levels, and grades. Twelve focus groups were conducted at headquarters, and eight were conducted in the four regions.

The following is a list of items included in the analysis:

- identification of common themes;
- identification of any perceived gaps, weaknesses, strengths, or best practices;
- identification of cases of staff having limited or no knowledge about a particular policy or programs;
- determination of where training and development is needed; and
- identification of the types of data supplied by the various categories of participants;

Information on the focus groups participants and their individual contributions was not retained after the analysis was completed. All information was considered in the aggregate and not attributed to any individuals.

¹ The working definition of Internal Safety Culture used for the focus groups was: “That assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear safety issues received attention warranted by their significance [source: International Nuclear Safety Group (INSAG-4 Report)]. This is internalized and measured by NRC individuals, at all organizational levels, through their work activities in support of the agency’s mission, and guided by the agency’s values.

² The mission of the NRC is to “License and regulate the Nation’s civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.”

³ NRC’s Strategic Goals are to ensure adequate protection of public health and safety and to ensure adequate protection in the secure use and management of radioactive materials.

4.0 Common Themes

A number of common themes were detected among the twenty (20) focus groups. These themes are stated below.

1. Staff members are familiar with the availability of the Differing Professional Opinions (DPO), Non-Concurrence, and Open Door Policy programs. However, they are not fully aware of how these programs work and how issues are resolved by them.
2. Perception is that people may be hesitant to raise concerns through the formal reporting processes.
3. Concern for the lack of a systematic process for capturing and transferring technical knowledge from people leaving the agency or moving to other positions within the agency.
4. Lack of confidence in the performance evaluation system. There is dissatisfaction with what is perceived to be a quota-like evaluation process and the level of subjectivity in the grading of staff.
5. The agency is too “metric” oriented, versus “quality-driven,” in the production of deliverables.
6. Policies and procedures are not kept current. The agency is not held to the same standards of procedure maintenance by which it seeks to hold the industry.

5.0 Findings/Data Points

The focus group questions are related to the nine safety culture components: Safety Conscious Work Environment, Resources, Continuous Learning Environment, Problem Identification and Resolution, Accountability, Organizational Decision Making, Work Practices, and Work Planning and Control. Following are the key findings related to the nine Safety Culture Components. Each section below includes a listing of recommended suggestions generated by the focus group participants. When asked about the Safety Conscious Work Environment (SCWE), 11 of the 20 groups, including all levels of staff technical and non-technical, stated that they are kept informed and current with safety policy and events. The individuals in the technical disciplines were eager to explain their roles and contributions to the safety culture. Most of the individuals, whose roles were that of an engineer, physicist, or chemist, explained that most of the work they perform on the reactor side involves safety. This response was common from Junior to Senior levels, for all the headquarters and regional groups. They felt their job was to support the technical staff. While they were aware of the level of importance of safety within the NRC, they however reported that they found it difficult to see how their job impacts the internal safety culture.

5.1 SAFETY CONSCIOUS WORK ENVIRONMENT (SCWE)

There is an established Safety Conscious Work Environment (SCWE) at the NRC. This environment was clearly articulated by the focus group participants. In nine of the 20 groups, participants said that they contributed to the NRC's Internal Safety Culture by raising concerns when they have them (eight technical and one non-technical). In three of the 20 focus groups, all non-technical, an SCWE was more of a challenge for them to explain, as they were not sure what the term meant. For the most part, participants did not necessarily feel that they would be retaliated against by co-workers; however, they might be excluded and viewed as a trouble maker if they brought up too many issues. Issues are sometimes challenges to getting reports out in a timely manner. Some participants in nine of the 20 groups were noted as being fearful of using any of the processes for raising differing views or concerns. Evidently there is a mixture of opinions when raising concerns among all levels both technical and none technical.

Suggested Recommendations:

- Continue with the campaign for awareness of NRC's SCWE (or OCWE) programs, especially in the regions and among the non-technical staff.
- Create a performance measurement for each department that speaks directly to SCWE.
- Clearly define the expectations for an open and collaborative work environment and reiterate from the top that managers need to create a positive work environment in which staff can be comfortable raising issues or concerns without fear of retaliation.

5.2 RESOURCES

Overall, the participants believe that in general NRC provides adequate resources such as personnel, equipment, procedures, and other resources; however there are some noted challenges. In nine of the 20 groups, participants felt that resources sufficiently support the strategic goals of the organization with respect to safety. Five of those groups were technical and four were non-technical. Some focus group participants expressed their dissatisfaction with the inadequacy of the Information Technology systems and other resources for information. There was also concern about the inconveniences caused by the decentralization of headquarters offices/personnel, despite the advantages brought by additional space. Six of 20 focus groups, (three technical and three non-technical), expressed concern that there was a noticeable trend in the insufficient number of technical staff available to perform work. This was expressed from a mixture of both short and long tenured employees and across the regions and headquarters. Similar concerns were expressed about the amount of time it takes to recruit, select, and bring on-board urgently needed personnel, especially administrative assistants. Moreover, there was discussion in some of the regional office focus groups, mostly from the non-technical participants, which suggested that some of the policies and procedures are outdated. The perception is that the Commission is not held to the same procedure maintenance standards by which it seeks to hold the industry. In some of the headquarters focus groups, discussions were centered on the fact that it was easier to retrieve such information from public websites, than it is to find policies or procedures on the systems within the Commission.

Suggested Recommendations:

- When employees are transitioning from one role to the next, or out of the Commission, they should be allowed sufficient time for knowledge transfer and cross-training to their replacements.

- Introduce state-of-the-art technology in a timely way. It appears that NRC lags behind other agencies in introducing new technologies.
- Standard Operating Procedures (SOPs) should be frequently updated, easily accessible, and clearly posted.

5.3 CONTINUOUS LEARNING ENVIRONMENT

The focus group participants provided positive feedback regarding available training opportunities provided by the NRC. Fifteen of the 20 groups noted that management supports training. Most participants, on the technical side, responded that the training necessary to perform their roles was readily available. Four of the 20 groups expressed that training seemed more readily available for the technical staff than it was for the non-technical staff. Another four out of the 20 groups, three technical and one non-technical and varied in mix of Senior to Junior level and all from the regional areas, expressed difficulty in participating in training due to their regular duties. They reported that in the regional offices there is a challenge in allocating the necessary human resources to “fill in” for staff members who are attending training. Additionally, the cost associated with any travel that may be required for training is not always sufficiently budgeted. Travel costs, time, and availability challenges were not as prevalent in the responses from Headquarters. Four of the 20 groups, (one technical and three non-technical), suggested that the budgeted training dollars are limited. This was a mix of all levels and technical staff only. Many of the focus group participants in the regional offices, technical and non-technical, indicated that they would like to be allotted the time necessary to take advantage of the professional development and training courses that are offered.

Some of the junior-level non-technical groups, across the regions, and at headquarters, expressed a desire to have an Upward Mobility program re-initiated. Some stated that their career path had a glass ceiling. They felt that training is only readily allotted for classes that directly relate to their current job responsibilities and do not allow for expansion in their career growth, as opposed to training on the technical side. The technical participants ranging in all seniority levels from the regions and headquarters expressed concerns regarding the lack of a formal Knowledge Management System, where knowledge from those leaving the Commission is transferred to existing and new staff. In eight of the 20 groups (six technical and two non-technical) it was noted that knowledge transfer is a challenge and concern. The performance standards are directly aligned to these issues as they guide staff; more specifically, newer staff members.

Suggested Recommendations:

- Management should become more aware of and support training needs for junior-level non-technical staff team members.
- Create or re-install an upward mobility program that allows the non-technical administrative and support staff opportunities to advance their careers.
- Provide more training dollars, including travel, for those in the regional offices so they can have more training opportunities.
- Continue to provide more readily accessible professional and training development resources for technical staff.

5.4 PROBLEM IDENTIFICATION, EVALUATION, AND RESOLUTION

Many of the focus group participants expressed their willingness to raise safety concerns. They were able to provide multiple examples of available avenues through which they could do so,

such as the Non-Concurrence policy, the DPO Program, and the Open Door Policy. The participants relayed their experiences, or information about others' experiences, that raised concerns to their supervisors or through the other avenues available. Seven out of the 20 groups noted that the DPO's process and Open Door Policy are positive experiences. Nine out of the 20 groups expressed that they were allowed to speak their minds, and management handled differing opinions well. However, 12 of the 20 groups noted that there was a reluctance to raise concerns due to sense of fear from a hostile or negative work environment. Some participants in the focus groups, mostly in the regions and among the technical senior staff with more tenure, expressed concern that the raising of issues to their supervisors was not effective, as they felt that no action would be taken, or that there would be some retaliation or threat to the progression of their personal career. Some in Headquarters expressed that the process was too long and prohibited progress for certain issues, and there was a consensus that other staff would not view them in a positive light.

Finally, it was mentioned in six of the groups (four technical and two non-technical and all regional) that they would like to know the outcomes of raising specific safety concerns, theirs and others. They would also like to know how the decisions were reached with consideration of the concerns raised. Participants believed that having this knowledge would make them more willing to participate in these programs when necessary.

Suggested Recommendations:

- Provide on-going management training on the differing views programs provided by NRC. Provide more soft skills training (such as listening skills, managing conflict or controversial conversations; etc.).
- Research and re-evaluate the formal differing views processes for possible program changes that can expedite the process, then re-educate staff on the revised processes and communicate the handling of issues.

5.5 ACCOUNTABILITY

When asked questions regarding accountability, respondents within the regions and headquarters for the most part brought up the issue of NRC metrics. Views were expressed that the Commission has too many metrics. In five of the 20 groups, (three technical and two non-technical), the participants expressed that the over enforcement of metrics can sometimes override quality. The Commission is metrics-driven versus quality-driven in the production of their deliverables. Eight of the 20 groups shared their concerns about the current Performance Evaluation system, and the fact that the system may need to be reviewed. This view was verbalized most by the senior to junior-level non-technical groups. Participants providing support functions felt most dissatisfied with the perceived quota-like evaluation process and level of subjectivity in the grading of staff. Non-technical staff in the regions expressed that there are times when Management does not clarify expectations and goals with their direct reports. Participants of 12 of the 20 groups reported that they did not receive clear direction or that they sometimes had to train themselves (there was a seven to five ratio with non-technical stating this more often). There is inconsistency with the elements and standards for the same positions. Three of the 20 groups mentioned they felt "micro-managed". In four of the 20 groups it was stated that management was either not held accountable, or management blamed employees for mistakes. It was noted in one group from Headquarters that due to the metrics in place, there tends to be a lack of quality in safety evaluation reports written by the technical staff and the inspection reports written by the Resident Inspectors as they are forced to focus on the quantity (getting deliverables out) as opposed to the quality of the product being delivered.

Suggested Recommendations:

- Management, at all levels, needs to meet with their direct reports and clearly outline the expectations they have of the people who report to them.
- Job expectations need to be clearly stated in performance appraisals, elements and standards, and through the use of Individual Development Plans.
- Re-visit metrics and performance measures to make sure they are properly aligned and achievable, and include an emphasis on quality versus quantity.
- Yellow Announcements are effective; continue to provide more of them with safety culture information.
- Management should become more aware of safety issues and provide communications to both technical and non-technical staff.

5.6 ORGANIZATIONAL DECISION MAKING

Overall, all the focus groups participants expressed satisfaction with the organizational structure of the NRC. However, some of the participants from NRC Headquarters, on the non-technical side, mostly senior level, felt the structure looked stable on paper, but did not necessarily reflect that stability in terms of performance. Some members of the groups felt that the structure does not provide for maximizing the skills and aspirations of all employees, especially those employees who serve in administrative and support positions. In the regions and headquarters, the non-technical and technical groups expressed instances where their input is valued and is sought out by their supervisor. Nine of the 20 groups, both headquarters and regional (three technical and six non-technical), stated that they had opportunity to give and provide input, either directly or through email and suggestion boxes. Headquarters groups tended to express the opposite view, especially by those staff members that are newer to the Commission. Seven out of 20 groups, (six technical and one non-technical), all from headquarters and senior level, discussed that they were not given opportunities to provide input. Comments were made that participants were clueless as to how they could provide input because the process had never been communicated to them. In addition, the Regions and Headquarters provided the general theme that the bases for organizational decisions are not always explained down the chain of command. In nine of the 20 groups (six technical and three non-technical), the basis for decisions were not always given or made clear.

Suggested Recommendations:

- Seek input from employees and staff if a decision affects them, and discuss how they would be able to accomplish their responsibilities based on those decisions.
- Explain the basis for organizational decisions, at every level of the organization, in order to foster support and buy-in.
- Continue to use the EDO newsletter and internal web pages to communicate organizational changes.
- Use multiple communication tools (yellow announcements, intranet, NRC announcements, newsletters) as some communications may not be read, depending upon the preferences of the employees and staff.
- Develop a tool that will communicate to the staff decisions from formal processes, and how these decisions were made.

5.7 WORK PRACTICES, PLANNING AND CONTROL

There was a general view by focus group participants that staff members across the agency appeared to be proficient in their planning skills and work practices. Staff performs well, given the parameters they have in conjunction with performance standards, metrics and Standard Operating Procedures (SOPs). In the regions, some of the non-technical groups expressed some imbalances of their productivity from being asked to perform tasks dependent upon daily variables such as staff shortages and management holding certain staff members accountable more than others. This results in restructuring of their own daily priorities in accordance to metrics. A comment was made that as a result of staffing shortages, the Commission at times refused to accept and process applications. The non-technical groups in both the regions and headquarters reported that staying organized was key to maintaining timely and correctly prepared work products. Six of the 20 groups reported using at least one of the following time management tools: Outlook Calendar, "Weekly Ticket" Report, or an organizer/planner. Many of the staff at headquarters also reported utilizing an annual schedule and breaking that schedule down into daily, weekly, and monthly tasks. Seven of the 20 groups, (mostly junior in level and four non-technical and three technical) reported using an annual schedule, deadlines, and priority planning to best use their peers and supervisors in reviewing their work for acceptability. Ten of the 20 groups noted that they utilized peer review and a team approach to focus on the quality of their work. There was concern from some headquarters groups that at times supervisors/branch chiefs lacked the knowledge of technical areas to provide effective supervision. In five of the 20 groups, (three technical and two non-technical and junior in level), mention was made by technical staff that supervisors provide them direction and guidance on their work activities.

Suggested Recommendations:

- Make better use of internal tools to help staff stay organized—intranet, ADAMS, and regular all-hands meetings.
- Hold meetings where everyone involved in the completion of a project (including personnel from other offices/regions) can provide input and suggestions.
- Consolidate the administrative systems—there are currently four systems in use. (Weekly Tickler Report; Rule Making Prioritization Scheduler; Outlook Meetings Management; Metrics)
- Hold regular branch meetings (some branches are not holding regular meetings).

6.0 FOCUS GROUP CONCLUSION

Overall, there are concerns about the lack of a formalized process for the transfer of knowledge from staff that is being relocated or leaving the Commission due to retirement or resignation. The Commission should continue its efforts in building a strong safety culture that provides a comfort level for all staff in expressing their opinions and concerns. NRC should develop a formalized process for capturing and cataloging the experience and knowledge of all persons that leave the Commission, at every level in the organization. This would harness valuable information, allow for new employees to flatten the learning curve and enhance the level of safety and security throughout the organization. While there is a significant level of comfort throughout the agency to "speak one's mind", and to alert others about safety concerns, there is also a certain level of fear of retaliation for speaking up as it relates to safety and security concerns. There is a sense of concern among those participating in the Focus Groups regarding the competence of specifically the Branch Managers in the areas of leadership. There is need for more "leadership" training skills for managers so they can improve in the

areas of communication and performance management. Participants noted that they found useful information much more quickly while searching the NRC public website, versus waiting to hear from their bosses or from internal sources.

The following is a list of observations from our research.

1. Overall, the Agency's employees seem to be pleased with their roles as they relate to internal safety culture. Of all the focus groups approximately 15 of the total 20 expressed that they are pleased with the Agency. There were minor challenges that could be overcome. The Agency is experiencing good morale, employees are proud of the organization and their work on behalf of the Agency and the country. To maintain a continued high level of performance, it will be important for Management to actively listen to its employees regarding their legitimate concerns and suggestions. Proactively addressing the concerns of employees will allow the Agency to better plan for the future success and effectiveness of the NRC.
2. It is a positive sign that the employees are willing to communicate their concerns and complaints to Management; issues that negatively impact a healthy safety culture cannot be addressed and resolved if they are not brought to the attention of Management. The willingness of employees to speak in a forthright manner is an indication of a healthy organization, and a sign that employees have a level of trust in their supervisors. However, there are some staff that are still concerned that they may be subject to retaliation should they choose to make a concern official by filing a DPO or non-concurrence.
3. Failure to address legitimate concerns articulated by employees, especially when Management proactively asks to hear them, can lead to cynicism, apathy, and turnover of otherwise productive and satisfied employees.
4. It is critical that all legitimate safety culture issues are resolved; the impending future increase in the construction of new facilities by licensees, necessary to fulfill America's long term future energy needs, will continue to exert pressure on the resources of the NRC organization, including its people, its policies, and procedures.
5. There is an opportunity to re-emphasize and refocus the employees of the Agency on its safety mission and goals. The Agency should leverage the input given by its employees by reinforcing that their respective concerns were heard and will be addressed in a timely fashion. Involve and engage the employees so there is buy-in at the ground level.
6. Capture and communicate the knowledge transferred from those employees leaving the NRC organization. Failure to capture the organizational knowledge from the more tenured and experienced employees, before they leave, will put unnecessary and undue pressure on the entire organization.
7. Implement the recommendations gathered from the focus groups, across the organization, as it is practical to do so.

APPENDIX 1



U.S. NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

NRC Mission

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.

NRC Strategic Goals

Safety: Ensure adequate protection of public health and safety and the environment.

Security: Ensure adequate protection in the secure use and management of radioactive materials.

Internal Safety Culture Task Force's Charge

Per Commission SRM dated April 3, 2008 (M080317B), the staff was tasked to "provide the Commission with a report outlining potential initiatives that could improve the agency's internal safety culture." This tasking was assigned to the Office of Enforcement and an Agency-wide task force was formed to address the initiative.

Definition of Internal Safety Culture

That assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear safety issues receive attention warranted by their significance. This is internalized and modeled by NRC individuals, at all organizational levels, through their work activities in support of the agency's mission and guided by the agency's values.

APPENDIX 2



U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

Internal Safety Culture Focus Group

GROUND RULES

- Everyone should participate in discussion – we need all views
- No wrong or right answers
- There is no particular order for participants to respond – free flow
- Information will not be attributed to any individual – will be analyzed and results provided in the aggregate
- Participants should not discuss any individual's views outside of the focus group. The conversation stays in this room
- One person speaks at a time – Respect for each other
- Keep an open mind
- Keep comments relevant to the topic
- Time is limited - Be concise and specific
- Time permitting, we will revisit issues, as needed
- Do not take breaks outside of scheduled break times; no cell phones or blackberries

Have Fun!

APPENDIX 3

Nuclear Regulatory Commission Internal Safety Culture Task Force

Focus Group Questions

General Safety and Security

- 1) How would you define safety culture and what do you think is important to supporting a strong internal safety culture?
- 2) How do you see yourself contributing to the NRC's Internal Safety Culture?

Safety Conscious Work Environment (SCWE)

- 3) What does or can management do that makes you feel comfortable about raising concerns without fear of retaliation?
 - 3a. What is your view of the agency's current processes for raising differing views or other concerns, such as Open Door Policy, the Non-Concurrence Process, the Differing Professional Opinions Program, etc.?
- 4) What is your view or observation regarding how the agency deals with claims that someone was treated negatively for raising concerns or differing views?

Resources

- 5) How do you think the agency ensures resources, such as personnel, facilities, equipment, and procedures, etc., are available and adequate to support the agency mission and goals?

Continuous Learning Environment

- 6) How do you think the agency supports individuals in developing and maintaining knowledge, skills, and abilities needed to support the agency's mission? (E.g., leadership skills, technical skills, career goals (development)).

Problem Identification and Evaluation

- 7) In your view what are the agency's programs or processes for identifying and resolving internal issues, problems, and concerns that can have an impact on the safety and security mission?
 - 7a. What are your views on the effectiveness of these programs?

Accountability

- 8) Based on your experience, how does management provide staff with the appropriate authority and understanding of their roles and responsibilities to conduct their work activities?
- 9) How are managers and staff held accountable?

Organizational Decision Making

- 10) In your view, how does management communicate important organizational and programmatic decisions that affect the agency and staff and the bases for their decisions?
- 11) How are opportunities for providing input into decisions that are being made given to those affected by the outcome of the decision?

Work Practices

12) How do you focus on the quality of your work products in your day-to-day activities (e.g., attention to detail, asking for your supervisor or others to review products, etc)?

Work Planning and Control (WPC)

13) How do you plan your work activities and balance priorities to support our safety and security mission? What about your organization?

Concluding Question

14) Now that we have had some valuable discussion (re: areas important to safety culture in the agency), what are some of the highlights we can take away regarding best practices, gaps, strengths or weaknesses?

APPENDIX 4

Focus Group Quantitative Data

General Safety and Security

- 1) How would you define safety culture and what do you think is important to supporting a strong internal safety culture?

Answers and themes, and how many times mentioned:

- Ability to speak up = 10/20 groups (8 technical and 2 non-tech)
- Seek out information = 3/20 groups (1 technical and 2 non-tech)
- “Safety first” attitude/environment/culture = 14/20 groups (8 technical and 6 non-tech)
- Licensees complying with regulations = 3/20 groups (3 technical)
- “Not sure what ‘safety culture’ means” = 3/20 groups (3 non-tech)

- 2) How do you see yourself contributing to the NRC’s Internal Safety Culture?

Answers and themes, and how many times mentioned:

- “It’s what I do.” (inspectors) = 4/20 groups (4 technical)
- Safeguard correspondence and classified material = 5/20 groups (5 non-technical)
- Staying informed and current with policies and events = 11/20 groups (5 technical and 6 non-tech)
- Raise concerns when I have them = 9/20 groups (8 technical and 1 non-tech)
- Enforce regulations with licensees = 2/20 groups (2 technical)

Safety Conscious Work Environment (SCWE)

- 3) What does or can management do that makes you feel comfortable about raising concerns without fear of retaliation?

Answers and themes, and how many times mentioned:

- Have a set process to communicate and train how to raise concerns = 9/20 groups (5 technical and 4 non-tech)
- Treat people with respect and dignity = 4/20 groups (2 technical and 2 non-tech)
- Allow people to raise questions and concerns = 14/20 groups (8 technical and 6 non-tech)
- Listen with an open mind = 9/20 groups (4 technical and 5 non-tech)
- Set and example/promote safety culture = 3/20 groups (1 technical and 2 non-tech)

3a. What is your view of the agency’s current processes for raising differing views or other concerns, such as Open Door Policy, the Non-Concurrence Process, the Differing Professional Opinions Program, etc.?

Answers and themes, and how many times mentioned:

- Managers are defensive when the processes are used = 4/20 groups (2 technical and 2 non-tech)
- Would like to know the outcomes of raising concerns (theirs and others) = 6/20 groups (4 technical and 2 non-tech)

- The DPO process/open door policy is a positive experience = 7/20 groups (5 technical and 2 non-tech)
- I don't know much about the process/still learning = 9/20 groups (5 technical and 4 non-tech)
- I am aware of the process = 3/20 groups (3 non-tech)
- I am a little fearful of using any of the processes for raising differing views or concerns = 9/20 groups (5 technical and 4 non-tech)

4) What is your view or observation regarding how the agency deals with claims that someone was treated negatively for raising concerns or differing views?

Answers and themes, and how many times mentioned:

- People are allowed to speak their minds/management handles Differing Points of View well = 9/20 groups (7 technical and 2 non-tech)
- There is fear from hostile/negative work environment = 12/20 groups (7 technical and 5 non-tech)
- No known negative treatment = 4/20 groups (4 non-tech)

Resources

5) How do you think the agency ensures resources, such as personnel, facilities, equipment, and procedures, etc., are available and adequate to support the agency mission and goals?

Answers and themes, and how many times mentioned:

- Resources are sufficient/agency provides necessary resources = 9/20 groups (5 technical and 4 non-tech)
- Personnel resources are not sufficient, especially FTE's/administrative assistants=6/20 groups (3 technical and 3 non-tech)
- Knowledge transfer is a concern = 3/20 groups (3 technical)
- IT systems/resources are lacking = 5/20 groups (3 technical and 2 non-tech)
- Need more soft skills (people) training = 1/20 groups (1 technical)
- Facilities/office space is an issue = 6/20 groups (3 technical and 3 non-tech)

Continuous Learning Environment

6) How do you think the agency supports individuals in developing and maintaining knowledge, skills, and abilities needed to support the agency's mission? (E.g., leadership skills, technical skills, career goals (development)).

Answers and themes, and how many times mentioned:

- Management supports training = 15/20 groups (8 technical and 7 non-tech)
- It is difficult to participate in training because I still have my regular duties to fulfill = 4/20 groups (3 technical and 1 non-tech)
- It seems as if training is more readily available for the technical staff versus for the administrative staff = 4/20 groups (4 non-tech)
- Budgeted training dollars are limited for outside training = 4/20 groups (1 technical and 3 non-tech)
- Knowledge transfer is a challenge = 5/20 groups (3 technical and 2 non-tech)
- Need more people skills training = 2/20 groups (2 technical)

Problem Identification and Evaluation

- 7) In your view what are the agency's programs or processes for identifying and resolving internal issues, problems, and concerns that can have an impact on the safety and security mission?

Answers and themes, and how many times mentioned:

- Employees are encouraged to bring up issues/concerns = 7/20 groups (3 technical and 4 non-technical)
- Open door policy = 3/20 groups (3 non-tech)
- Lessons learned/best practices = 4/20 groups (2 technical and 2 non-tech)
- Standard Operating Procedures and processes = 3/20 groups (2 technical and 1 non-tech)
- Internal websites = 1/20 groups (1 non-tech)
- Branch meetings = 1/20 groups (1 non-tech)

- 7a. What are your views on the effectiveness of these programs?

Answers and themes, and how many times mentioned:

- Not all employees are aware of programs = 5/20 groups (3 technical and 2 non-tech)
- Timely responses are given by internal websites = 3/20 groups (1 technical and 2 non-tech)
- Policies in place are good = 4/20 groups (3 technical and 1 non-tech)
- Need closure on outcomes of issues = 5/20 groups (4 technical and 1 non-tech)

Accountability

- 8) Based on your experience, how does management provide staff with the appropriate authority and understanding of their roles and responsibilities to conduct their work activities?

Answers and themes, and how many times mentioned:

- I have little authority/decision-making power = 5/20 groups (2 technical and 3 non-tech)
- Roles are clear/I get good direction = 6/20 groups (5 technical and 1 non-tech)
- Branch Chiefs change a lot = 2/20 groups (2 technical)
- I don't get clear direction/sometimes you have to train yourself = 12/20 groups (5 technical and 7 non-tech)
- Individual Development Plans and Individual Study Activities (ISA's) = 5/20 groups (4 technical and 1 non-tech)
- Utilize existing guidelines (e.g.—A-11 OMB Integrating Performance Plan and Budget) = 1/20 groups (1 non-tech)
- I feel micro-managed = 3/20 groups (2 technical and 1 non-tech)

- 9) How are managers and staff held accountable?

Answers and themes, and how many times mentioned:

- Inspection program/reports = 5/20 groups (3 technical and 2 non-tech)
- Procedure documents/forms = 6/20 groups (5 technical and 1 non-tech)
- Management not held accountable/blames employees = 4/20 groups (2 technical and 2 non-tech)

- Performance appraisals (“system may need to be reviewed”) = 8/20 groups (5 technical and 3 non-tech)
- “Metrics” = 4/20 groups (2 technical and 2 non-tech)
- Not clear/no response to question = 4/20 groups (2 technical and 2 non-tech)

Organizational Decision Making

10) In your view, how does management communicate important organizational and programmatic decisions that affect the agency and staff and the basis for their decisions?

Answers and themes, and how many times mentioned:

- Communications are good and are done through various communication channels = 16/20 groups (9 technical and 7 non-tech)
- Basis for decisions are not always given/clear = 9/20 groups (6 technical and 3 non-tech)
- Communications are not good = 4/20 groups (2 technical and 2 non-tech)

11) How are opportunities for providing input into decisions that are being made given to those affected by the outcome of the decision?

Answers and themes, and how many times mentioned:

- Opportunities are given to provide input (asked directly; via emails; suggestion box) = 9/20 groups (3 technical and 6 non-tech)
- Opportunities are not given to provide input = 7/20 groups (6 technical and 1 non-tech)

Work Practices

12) How do you focus on the quality of your work products in your day-to-day activities (e.g., attention to detail, asking for your supervisor or others to review products, etc)?

Answers and themes, and how many times mentioned:

- Utilize peer review/team approach = 10/20 groups (6 technical and 4 non-tech)
- Ask my manager/my manager helps me = 2/20 groups (1 technical and 1 non-tech)
- Look at previously completed reports for guidance = 1/20 groups (1 technical)
- Utilize the concurrence process = 1/20 groups (1 non-tech)

Work Planning and Control (WPC)

13) How do you plan your work activities and balance priorities to support our safety and security mission? What about your organization?

Answers and themes, and how many times mentioned:

- Annual schedule/deadlines/priority planning = 7/20 groups (3 technical and 4 non-tech)
- “Metrics” = 3/20 groups (3 technical)
- Based on licensee scheduling = 1/20 groups (1 technical)
- My supervisor gives me direction (“green record book”) = 5/20 groups (3 technical and 2 non-tech)
- Outlook calendar/weekly ticker report = 4/20 groups (1 technical and 3 non-technical)
- Organizer/planner = 2/20 groups (1 technical and 1 non-tech)

Concluding Question

14) Now that we have had some valuable discussion (re: areas important to safety culture in the agency), what are some of the highlights we can take away regarding best practices, gaps, strengths or weaknesses?

Answers and themes, and how many times mentioned:

- **Best Practices**

- Emphasis on professional and training development = 14/20 groups
- Emphasis of formal processes such as the DPO, Non-Concurrence and Open Door Policy = 10/20 groups
- Emphasis on safety and security = 10/20 groups

- **Gaps**

- Process for sharing of Formal Decisions and the basis of the decision (eg. DPO, Non-Concurrence) = 12/20 groups
- Knowledge Transfer = 12/20 groups

- **Strengths**

- Training and development initiatives = 14/20 groups
- Information sharing systems (yellow announcement, EDO newsletter, internet web pages) = 15/20 groups
- Automated work planning tools = 10/20 groups

- **Weaknesses**

- Performance Evaluation System (Too metrics-driven) = 14/20 groups
- Agency instant message system = 8/20 groups
- Technology systems capabilities and currency = 10/20 groups
- Selection and appointment process for Branch Managers = 15/20 groups

APPENDIX 5
Focus Groups Schedule Chart

Date	Location	Technical	Non-Technical	
Nov. 17	Region IV	9		
Nov. 18	Region IV		8	
Nov. 20	Region II	8		
Nov. 20	Region II		8	
Dec. 1	Region III		8	
Dec. 1	Region III	9		
Dec. 3	HQ	9		
Dec. 3	HQ	8		
Dec. 4	HQ	8		
Dec. 4	HQ	9		
Dec. 8	HQ		8	
Dec. 8	HQ		6	
Dec. 9	HQ		9 (mix)	
Dec. 9	HQ		6	
Dec. 12	Region I	7		
Dec. 12	Region I		5	
Dec. 15	HQ	6		
Dec. 15	HQ		8	
Dec. 16*	HQ	7		
Dec.16*	HQ		7	
Totals	20	80	73	153

*December 16 focus groups were comprised of supervisors.

E

Appendix E

List of External Organizations Benchmarked by the Internal Safety Culture Task Force

No.	Organization and Public Website	Contact Information
1	Federal Aviation Administration (FAA) http://www.faa.gov/safety/	Peggy Gilligan Associate Administrator for Aviation Safety 202-267-7804
2	Pantex B & W http://www.pantex.com/safety/index.htm	Michael Ford Differing Professional Opinions Program Manager 806-477-5727
3	British Petroleum (BP) http://www.bp.com/productlanding.do?categoryId=6913&contentId=7043155	Kathleen Lucas Vice President for Safety Assurance 281-366-1036
4	National Transportation Safety Board (NTSB) http://www.nts.gov/	Robert L. Sumwalt Board Member 202-314-6021
5	Disney Company http://corporate.disney.go.com/corporate/cr_safety_security.html	Nathalie Hawkins Manager, Global Communications 407-824-4695
6	National Institute of Standards and Technology (NIST) http://www.nist.gov/index.html	Patrick Gallagher Deputy Director 301-975-3097
7	Naval Reactors http://www.military.com/	Tom Roberts Director, Division of Reactor Safety and Analysis 202-782-6095

Part of the Internal Safety Culture Task Force's data collection activities involved reaching out to private sector organizations and federal safety agencies that have important safety objectives to gather insights on practices, programs, and processes to develop and maintain a strong safety culture. The conversations that took place during the benchmarking experiences were insightful, productive, and educational. The Task Force sincerely appreciates the time, dedication, and the open sharing of information provided by all the organizations it benchmarked. The individuals from these external organizations who provided support to the Task Force directly contributed to this effort and to the NRC's focus towards continuous improvement.

External Benchmarking Questions

1. How do you see safety as part of your organizational mission or business objective? Are there efforts to help each employee in your organization understand how his or her job contributes to the safety mission? What are those efforts?
2. What comprises safety culture in your organization in terms of philosophy (beliefs), processes, and programs? What are the specific characteristics or attributes of safety culture in your organization?
3. Do you have processes in place for employees to raise and pursue differing views or report concerns? These processes could include an open door policy, a non-concurrence process, or a differing professional opinions process. If so, what has been your experience? Specifically, please describe how well employees understand these processes, how frequently employees use them, and how you evaluate the effectiveness of your processes.
4. We have designated nine attributes or “components” of safety culture that we are using in our review of the NRC’s internal safety culture. Please review our list of components. How many are similar components are included in your safety culture program? Do you have other criteria not represented by these nine components?
5. How do you communicate, internally and externally, the concept and importance of safety? What types of communication strategies does your organization use to convey messages about its safety culture?
6. Does your organization assess safety culture? If so,
 - a. How do you assess your organization’s safety culture? Please describe any employee surveys, interviews, focus groups, or any other observations or methods.
 - b. How often does your organization assess its safety culture? How do you address the results or findings?
7. What do you consider the most significant safety culture strength within your organization? Please describe why you consider it the most significant.
8. What would you describe as your organization’s biggest challenge in implementing an effective internal safety culture? How do you address this challenge?

Note: We will forward a letter to each organization, in advance of our meeting, that confirms the date, time, location, and purpose. We will also request any documentation that the organization would like to share. NRC interviewers should browse the organization’s Web site in advance of the interview for any public safety culture information so that interviewers are prepared to reference the organization’s stated safety culture position when conducting the interview.

F

Summary of NRC Supervisor/Management Interviews

Representing a diverse range of views in a summary is difficult at best, and at worst does not convey the richness, depth, and breadth of such broadly experienced views. In order to better capture these views, the notes, quotes, and paraphrases from these interviews are attached (see Attachment A: Notes from NRC Supervisor/Management Interviews) and the reader is invited to consider them in addition to these summaries.

The summary information from the interviews is organized by general themes. To make these summaries more meaningful and insightful, the context and highlighted underlying principles, based on the interviewers' recollections of these conversations, have been added. Strengths and good practices have also been noted.

COMMUNICATION AND SAFETY CULTURE FRAMEWORK

Summary: There needs to be greater clarity in the expectations for our collective behavior, and these expectations must be sanctioned in some way by the Commission itself. The expectations must include recognizing the value of bringing forward different perspectives, listening to them, and considering them as part of our decision processes. The collection of agency-level expectation words (e.g. NRC Mission, Goals, Vision, Principles, and Values) needs to become clearer and more powerful in driving the desired behaviors within every organization at NRC.

Noted Strengths and Good Practices:

- Some Office-level management meetings are open to any employee.
- Office Director starts every meeting with a safety message.
- Communicating success stories through newsletters, websites, and senior management emails.
- We feedback the “why’s” of Office-level decisions at all-Office monthly current status meetings.

STATED VALUES, BELIEFS, AND PRINCIPLES

Summary: The respectful manner in which we treat each other every day encourages the free and effective flow of information throughout the organization, laterally and vertically. In an environment where information flows readily, values and principles are more apparent and more easily discussed. As an organization we can define our values, but it is only through conscious thought, individual experiences, and practice that they become real. When values are explicitly discussed and related to our decision processes, we more effectively transfer them to succeeding generations of employees. This “values transfer” complements *is a critical component* of our knowledge management/transfer efforts.

Noted Strengths and Good Practices:

- Some Offices engaged their employees in defining the NRC organizational values and/or an Office “Vision” for themselves.
- Focus on building good relationships throughout the Office.
- Team and collaborative orientation and willingness to challenge each other respectfully.
- Cash awards for demonstrating NRC organizational values.
- Observed in one Office: Coffee cups with the logo “Safety – Our Core Value.

SAFETY CONSCIOUS WORK ENVIRONMENT

Summary: (Note: This category provoked the most extensive comments.) The principle value of expressing differing views is that it ultimately results in more informed (and therefore generally better) organizational decisions. We should work to foster an environment where we are expected to challenge and question each other for the purpose of ensuring good decisions, while always being respectful of each other (i.e. not impugning the integrity of any ‘view-holder’ or decision-maker). In addition, when the decision-maker provides feedback regarding the basis of a decision, it helps to foster organizational learning. This feedback often takes extra effort on the part of management, but should be viewed as part of supporting a continuous learning environment and effecting knowledge transfer to newer employees. When such feedback and dialogue is accomplished early in a decision process it can be less burdensome as well as more beneficial. Both the proponents of differing views and the managers that must make the final decisions should recognize that the value of raising and considering such views is in the process itself, extending far beyond the particular decision, regardless of the particular decision outcome. When staff holding differing views are not provided the reason or rationale for management decisions, then speculation often arises regarding what (or who) influenced the decision. Transparency of decision bases demonstrates that the decision-making is objective, independent, and rational, and helps to build trust between management and staff.

Noted Strengths and Good Practices:

- The EDO’s emphasis on servant leadership, if implemented, should be very supportive of SCWE.
- The NRC is very open to doing things differently compared to other agencies I’ve worked for.
- The NRC Team Player Award is an excellent means to emphasize good SCWE.

RESOURCES

Summary: Prioritization of resources should be a collaborative effort due to the many dynamic variables involved and the many perspectives on how to best achieve our safety and security mission. Staffing resources must account for the relative degree of new employee training

needs as well as accomplishing the agency's mission. First line supervisor turnover is too high, making it very challenging for new supervisors to train new staff while still getting the work done.

Noted Strengths and Good Practices:

- Our resource decisions are driven by our Office Vision statement.
- We have monthly resource management meetings in our Office that include all Division, including our administrative support staff. This helps ensure common understanding of why we do what we do.
- A great example of Open Collaborative Working Environment is our high level waste core group who had to deal with significant budget cuts and did so in a very collaborative manner.

CONTINUOUS LEARNING ENVIRONMENT

Summary: Continuous learning is more than just ensuring our employees have access to and are on track to gaining and improving professional competence within their chosen field. It also includes transferring our organizational values through broad inclusion in our dialogue and deliberations. We need to continue improving the means to convey lessons and insights that have been learned in our history. Transmitting cultural values primarily takes place through interpersonal interactions, and the most important of these are between an employee and their supervisor or manager. Therefore, supervisors and managers must continue to practice and develop their skills and ability to effectively communicate the values and principles underlying their actions. Developing employee understanding of how we apply our organizational values and principles is equally important with developing professional competence, as these two aspects are inseparable in our daily work activities. One of the most beneficial opportunities to combine and apply both of these aspects is through field experience with licensee oversight activities and through participation in real-time exercises. What we learn through self-assessment and improvement initiatives within our office, division, or branch should be shared with other similar organizations within the agency.

Noted Strengths and Good Practices:

- We give priority to updating technical guidance and Management Directives (knowledge management) and training to new employees, inspector certification and refresher training.
- We supplement formal training with staff-led monthly seminars and utilize Communities of Practice.
- Our qualification standard includes a line item on regulatory philosophy that must be signed by the Office Director.

PROBLEM IDENTIFICATION, EVALUATION AND RESOLUTION

Summary: Some of the larger offices *and programs* have regular internal self-assessment activities and some of these have developed corrective action programs for tracking the

resultant action items. Self-assessment activities are one way to identify latent problems that are not currently apparent but could easily become visible and significant under some likely future circumstances. Resources should be budgeted for such activities, which may also support our reasonable assurance reporting requirements for internal controls under the Federal Manager Financial Integrity Act.

Noted Strengths and Good Practices:

- We routinely do internal Division-level self-assessments using the SWOT technique (strength – weakness – opportunity – threat).
- Our Office has a Corrective Action Program that accepts all of our self-assessment and external audit recommendations, focusing on these higher-level issues.

ACCOUNTABILITY

Summary: Accountability starts with providing clear expectations, if necessary, requiring training to develop the skills to achieve these expectations, reinforcing the expectations, and periodically assessing whether the expectations have been met. With respect to internal safety culture, the GG performance appraisal elements and standards are not consistent across the agency in how they convey safety as a first priority. The SES contracts include both performance measure execution targets as well as executive competency expectations, but the former are given the most attention and these safety and security metrics do not necessarily cascade down through the staff's elements and standards. Even for similar job functions (e.g. inspectors) "Safety Responsibility" is not included as an element on all appraisals. In some cases, performance metrics can create pressure to lower our standards somewhat to meet timeliness or quantity goals.

Noted Strengths and Good Practices:

- In our elements and standards we include "Customer Support" and ensure we know who our customers are, and then emphasize the linkage to the agency mission.

ORGANIZATIONAL DECISION-MAKING

Summary: There are multiple demands and factors influencing our decisions resulting in a need to be generally collaborative in our processes and transparent in our bases. Very similar sentiments were expressed in the interviews as they were in the SCWE category regarding the value of management making clear its decision bases. Two managers who have been agency employees since the 1970's or 1980's expressed the view that in the late '70's and early '80's the staff's actions and processes were less likely to accommodate licensee inputs, but starting in the mid-1980s there was more concern for over-regulation as industry became more organized. They perceived that industry accusations in 1994 of inappropriate regulatory actions led to further agency outreach effort to seek industry inputs, and the Backfit Rule (10 CFR 50.109) added to this by requiring us to think more about industry cost and burden.

WORK PRACTICES

Summary: In the process of performing work there is often a tension between staying on schedule and achieving the required quality. Work is planned with best available information and estimation, but as work proceeds this tension can increase. Minimizing such tension starts with ensuring the quality expectations are made very clear at the beginning and that management supports these expectations. When problems with meeting expectations begin to arise, they need to be raised up the management chain early. Then management alignment is needed on the quality expectation so that staff can either proceed on the schedule or extend the schedule, if needed, to achieve the required quality. In our reactor inspection processes we should be spending more time on planning, inspecting for causes, and producing well-written reports, rather than on resource intensive significance evaluations.

WORK PLANNING AND CONTROL

Summary: Work prioritization is influenced by many factors and sometimes the driving factor is not safety/risk significance (e.g. responding to Congress). We might ask ourselves the question “what are the consequences of a lower priority for this work” as an important input to our prioritization. Another important input is the priority in the customer office that utilizes and relies upon our work.

Noted Strengths and Good Practices:

- Our Management Directive for responding to events (MD 8.3) is a good example of a process that tries to balance and work through value conflicts regarding safety and risk.

CORPORATE SUPPORT STAFF

Summary: Although of vital importance to the accomplishment of our mission, corporate support staff sometimes feel under-valued and under-recognized. Greater efforts should be made to recognize the importance of their contributions, such as creating a possible Corporate Strategic Goal within the Strategic Plan. In addition, some offices ensure that support staff inputs are routinely solicited and included in decision-making processes, especially during budget and resource implementation discussions. Support staff contribute directly to our safety mission, such as during response to real events and often during simulated exercises. These are opportunities for the technical staff to recognize and appreciate the importance of the support staff roles.

EMPLOYEE OCCUPATIONAL SAFETY CONSIDERATIONS

Summary: Employee safety cannot reasonably be separated, in people’s minds, from internal safety culture. They are interrelated. Emphasis on occupational employee safety is a good way to foster a more broad safety consciousness within all our work processes. However, different (regional) offices apparently provide different levels of support for safety clothing, physical examinations, etc.

MISCELLANEOUS

Summary: The OIG Safety Culture/Climate Survey (SCCS) provides valuable independence and thereby credibility, but lacks any evaluation of which areas for improvement are more/less important. With a very large influx of new employees (47% have been with NRC less than 5 years), the next OIG SCCS results will need to be viewed in that context (newer employees have less experience base to draw from when answering the questions).

Noted Strengths and Good Practices:

- NRC does much better than prior agencies I've belonged to regarding personnel decisions, which are not politically motivated or related to personal connections.
- Enlightened Leadership (concepts) has been very helpful in our Office.

Attachment A

Notes from NRC Supervisor/Management Interviews

Note: These notes are taken from about 40 separate interviews with first-line supervisors (e.g. Team Leaders, Branch Chiefs, Senior Resident Inspectors), Division Directors and Deputies, and Office Directors and Regional Administrators.

COMMUNICATION & SAFETY CULTURE FRAMEWORK

I would define our internal safety culture as simply the willingness to bring up issues and differing views. (x 5*)

Supervisors (first line) are the key, but we all need to be personally committed to self-assessments and continuous improvement, and convey and act on these messages consistently. (x 3)

We need an internal safety culture Commission Policy, as a corollary to the external Policy statement we are doing now. (x 3)

What is most important is open communication and an open door policy, but managers need to advertise it more and need to become better listeners. (x 2)

Safety means something different to NRC than it means to a licensee who has a physical plant to operate. (x 2)

Our Office-level management meetings are generally open to all employees (providing opportunities to generate better awareness and understanding of office/agency-level drivers) and are sometimes also used to make performance awards. (x 2)

It always comes back to good communication and how management listens and reacts to differing views. (x 2)

Our Office Director always starts meetings with a safety message. (x 2)

Over the years, internal safety culture has been 'defined' by the NRC Organizational Values, Principles of Good Regulation, Safety and Compliance Policy, and the Open, Collaborative Working Environment. However, we have not elaborated on the ways in which we demonstrate our commitment to safety and security, nor have we documented our internal culture in detail with expected behaviors with respect to safety, security, and safeguards. What does it mean that we "demonstrate commitment" or "have high standards of performance" when it comes to safety, security, and safeguards?

The Safety Culture Principles developed by INPO apply equally well to our own organization as they do to licensee organizations.

Through documenting our culture, we can share it easier, earlier, and more clearly with new employees. The description of our culture can also provide us with a benchmark to compare against in striving to achieve the same high commitment to ensuring safety, security, and safeguards that we expect of our licensees.

Dr. Edwin Schein's (MIT) organizational culture model has three connected levels that need to be in alignment: 1) basic assumptions (management team must set and align on these) – 2) espoused values (what we say) – 3) artifacts (what we do, such as process and policy). Leaders drive the needed alignment using dialogue with staff that leads to shared understanding. We should establish basic assumptions in writing and they should be more detailed than the 5 Principles of Good Regulation and the 7 NRC organizational values.

We don't communicate the safety message enough (e.g. staff may get acknowledged for doing a 'good job' with language like 'we got it done on time' whereas it should be more like 'we arrived at a good defensible safety basis on time') and need to more consistently connect how what we do relates to our safety mission.

I'm not sure that we can directly import the 9 ROP safety culture components directly into the NRC organizational context.

We should transpose the ROP (safety culture) values into NRC's context.

The word "enable" in our Strategic Plan can be misunderstood. We enable the public to benefit from nuclear technologies when we do our jobs well as a regulator. We don't 'enable' licensees, but we do have an obligation to license activities that meet our regulatory standards.

We don't have a safety culture problem, we have a communication problem. The solution includes better listening practices (for first line supervisors) as a priority.

The 5 Principles of Good Regulation should emanate from our mission, vision, and values statements.

Be careful you don't end up just layering on one more (organizational excellence) poster. We don't need more posters.

You need to define internal safety culture to cut across all agency processes.

The willingness to be self-critical at all times is very important, but then how do we measure success?

It's NOT internal safety culture (as a stand-alone concept), rather it is the safety *emphasis* within the agency's organizational culture.

Ultimately the internal safety culture defining message (e.g. policy?) must come from the Commission itself.

There is always more that we can do to improve, but don't overlook the good things that are being done right now and the strength of our current internal safety culture.

The idea of safety culture as the interaction of people and processes around a central set of values really resonates with me.

We think there is great value in communicating success stories through our Office newsletter, website, and via senior management emails.

All communication is controlled by the receiver (we need to ask all our “receivers” for feedback and verification more frequently and train our supervisors in this concept).

I would define our internal safety culture as the environment that fosters a questioning attitude and values the ability to challenge each other. This is easier to accomplish in a smaller (e.g. Regional) Office where everyone interacts routinely with each other, including senior managers. We implemented an ‘Ask Management’ feature on our website to open the door to any anonymous questions.

The most important aspect of improving internal safety culture is how we manage and treat the new employee.

Safety culture includes security and support staff. Safety and security are complementary and interdependent.

You need to bring together the components of your internal safety culture framework with the Office of Management and Budget (OMB) concept of Internal Controls – there is a clear nexus there.

The definition (framework) for internal safety culture should be linked to the NRC Strategic Plan and goals.

Internal safety culture needs to be defined (something we can point to) but the ‘tone’ is always set by the EDO.

As supervisors and managers become very experienced in one particular area, they need to make extra effort to interact with other Divisions and be open to new ideas, especially those of their own staff. They may need to be reminded of the value of diversity and diverse views.

A good test of how good the safety culture is comes from looking at who gets promoted.

There is no magic answer to safety culture. The agency is on the right path and we don’t necessarily need to look at it like licensee’s do to have a good one. We just need to keep moving and not let up.

VALUES, BELIEFS, & PHILOSOPHIES STATED

Good internal safety culture requires constant professional (respectful/collegial) communication day-to-day in each and every interaction. (x 5)

Achieving Security goals is a component of achieving Safety goals. These goals are not independent of each other and (public) Safety is the top goal. (x 3)

The most important organizational value is: excellence, trust, commitment, integrity, respect (x 2), service, taking honor in public service (each offered by a different individual).

At least two Regions did a refresh of the 7 NRC Organizational Values by defining each Value for themselves (differently in most cases from the original all-NRC definition). In one Region a mnemonic was devised and this helped employees know what the values were and what they meant. The process that engaged employees in this case was more important than the specific output (new definitions). (x 2)

We must make top-level messages consistent and coherent: need a simpler (i.e. more direct) message to reach a new (younger) employee demographic

This agency isn't about punishment, but about bringing licensees into compliance (i.e. the goal of enforcement).

Questioning attitude: no one has the same understanding of what that means. Need examples that are meaningful to all levels of the organization.

There are too many words to be able to effectively internalize 5 Principles, 7 Organizational Values, 10 Top Mgmt Challenges, etc.). The most fundamental Value is constantly acting to develop Trust between and among all employees and managers.

A focus on building good relationships among staff and between staff and management is one of the major reasons our Office has improved over time. Good management-employee relationships are built through daily respectful interaction.

Continuous Learning Environment should be a value.

We are team-oriented, understand the benefit of differing views, and are willing to challenge each other respectfully. Our senior managers are very approachable and our office atmosphere is casual but seriously dedicated.

As a member of the Office of Investigations, we work to maintain a very collaborative relationship with the technical staff and we try to learn from each other.

Managers must communicate "safety first" often, must demonstrate walking the talk

Commissioners should come down and talk with the staff more frequently, and through these discussions demonstrate their commitment to our values

Certain values and principles must be consistently defined and expressed agency-wide. For example, the obligation to raise safety issues. Alternatively, on some level it is beneficial to allow each Office/Division/Branch to customize their own expressions of values. For example, defining each of the 7 NRC Organizational Values for themselves.

In our Region, our employees have defined a 3-part Vision: Safety, Inclusion, and Infrastructure.

Observed in one regional office: Coffee cups with the logo "Safety – Our Core Value"

Storytelling is a powerful way to communicate values.

Our Office makes \$750 cash “Values” awards for staff who demonstrate our values.

The 5 Principles of Good Regulation place too much emphasis on efficiency.

The first time I really saw my job in the Division of Contracts to be linked to the agency mission was when I took the agency’s “Customer Service” class, but we don’t offer that class anymore.

The notion of “Customer Service” should be revitalized within our Strategic Plan.

Our ‘aspirational’ words (e.g. 5 principles of good regulation) are OK, but behaviors are the real goal.

Why don’t we have some simple, direct, and easy to remember “Core Values” like they have in the military services (e.g. Duty, Honor, Country)? Safety is a core value.

We need a Values statement that connects with people, something easily remembered and not too abstract.

SAFETY CONSCIOUS WORK ENVIRONMENT

One of our strengths is in encouraging different views to be brought out early, but this also requires decision-bases going forward to be made clear to all. This is important for knowledge transfer (KT) reasons (developing a common understanding of safety importance). This KT can apply both internally and for public stakeholders too. (x 6)

We need to reduce the administrative burden of using the DPO and non-concurrence processes. Raising differing views can take extraordinary staff and management time and effort. This can create negative attitudes by management on this program. It should be streamlined. We need to make sure the non-concurrence process doesn’t end up similarly. (x 6)

Management needs to better explain the reasons why a particular staff view did not prevail in the final decision. There are usually several acceptable (i.e. safe) approaches to choose from and experienced managers sometimes choose based on ‘gut feel’ that is hard to articulate. (x 4)

The NRC Team Player award is an excellent means to emphasize good SCWE, the value of raising differing views, increasing agency credibility, and encouraging greater respect among staff and between staff and management. (x 3)

In emphasizing an Open Collaborative Working Environment, we need to have tools. For example, we do a good job on external “Communication Plans.” Why don’t we similarly have good internal “Collaboration Plans” developed for significant multi-organization projects? (x 2)

We need to get better at challenging each other for the purpose of probing the strength of technical positions without seeming like it's a personal attack on the credibility of the staff person(s) advocating those positions. This sort of challenging needs to become a more accepted practice.

In our Office, we had multiple staff members collectively express a differing view on a preliminary decision regarding the significance of an inspection finding. Although the licensee had already been informed of the original decision, staff very professionally and respectfully engaged management and made a sufficient case to review and ultimately to change the decision. The original decision did not include enough staff with the right expertise. When the decision was reviewed by more staff, the greater significance became apparent. This outcome was rated as a success by management even though it involved a difficult call to a licensee to change an earlier decision. This culture starts with daily receptiveness to differing perspectives and views and an atmosphere that encourages respectful challenges with the aim of improving decisions, not impugning the decision maker.

Younger employees seem more willing to raise questions, but need to hear more 'why's.'

We need to provide more/better collaboration opportunities between various technical disciplines to work out differing views without need of formal processes.

Decision forums such as Allegation Review Boards (ARBs) and Significance and Enforcement Review Panels (SERPs) are valuable opportunities for presenting differing views and challenging the thought processes.

Instead of putting up defense shields, management should embrace differing views and consider them objectively, talking them through with employees. Davis-Besse (head degradation) has caused people to be more open. This openness and collaboration is getting better but still needs more improvement.

Differing views can be a positive influence on ongoing thinking and decision beyond the one in which the view was raised, regardless of the actual decision outcomes. Also, asking for differing views can achieve early alignment on path forward.

Inspector safety instincts are developed from "nature" (e.g. their knowledge and innate curiosity) as well as "nurture" (e.g. training and mentoring)

We need more than just a questioning attitude, we need inquisitiveness (a personal attribute that includes probing deeply enough to understand context). Most importantly we need good communications skills (appropriate messages at appropriate levels of management, situational techniques, openness, honesty, fact-based).

We need to get away from the "you are my opponent" reaction when someone brings us a differing view. We need to get beyond just embracing differing views. We need to really value differing views. (analogy: whenever 2 business-persons agree, one of them is unnecessary)

Once you create an environment to freely raise questions, issues, and concerns, then you need to answer and address them case-by-case using tracking systems.

We should hold up as examples and celebrate DPOs that turned a decision around, and get away from perceptions of participants being 'adversaries.'

I define safety culture primarily by the observable behaviors such as willingness to raise issues (SCWE) and management's response to those issues. Most importantly is the recognition of those who raise differing views.

SCWE is most encouraged when you know that you will be listened to and that taking the right action will not be precluded by the industry.

The non-concurrence process is better (than DPO) because the decision has not been made yet and the degree of documentation is more flexible.

There is room for an agency-level ombudsman to help with differing views (suggested by a Differing Views Office Liaison – DVOL).

Some employees believe that DPO is not independent when the Office Director can make the final decision.

Perhaps we should have a totally independent review following DPO closure.

The (current) EDO's emphasis on the concept of servant leadership, if implemented, should be very supportive of SCWE.

The NRC is very open to doing things differently compared to other agencies I've worked for, and open to bringing in mid-grade and senior employees from the outside.

I know a staff member who didn't want to submit a non-concurrence due to they didn't want to be on the "wrong" side of management. That's the wrong environment.

I don't feel inspectors are adequately recognized for getting good findings. Any on-the-spot performance awards (cash) are deducted from the end-of-year awards.

Processes and policies (e.g. Open Door, DPO, non-concurrence) are not used by corporate support staff. These need to be advertised better.

It is easier for a Regional Office to connect each employee to the safety mission, encourage an atmosphere of questioning, and providing management feedback on the bases for our decisions. Our senior management is always asking what is the level of alignment on our inspection findings and decisions (this is a good practice).

During discussions and decision-making, we try to always ask the most junior person: "What do you think?"

Keep looking for opportunities to make examples of those who raised differing views.

During performance appraisal discussions with my staff, I always ask "what did you do to contribute to safety."

Sometimes DPO panels seem to be driven to find a win-win solution (and take much longer and more effort) when that isn't necessary or even helpful to accomplishing our safety mission.

Sometimes staff would appreciate earlier management involvement on an issue and more decisive management decisions. We are good about bringing views to the table, but often become very consensus-oriented and not so good at resolving or using them to get to a decision (and many decisions are not 'owned' by a single manager). However, the non-concurrence process is good since it raises issues before a decision and gets a documented decision.

Sometimes staff feels like they are coming close to 'consulting' to the licensee (i.e. giving licensees a particular licensing approach to meeting a regulation, that staff would accept). However, it's not consulting if we simply make clear why a licensee's application doesn't pass muster.

Sometimes it seems like some staff want to go beyond 'reasonable assurance' to demand 'absolute assurance' in our regulatory decisions. The dividing line between these concepts is sometimes gray and requires continued staff/management discussion and dialogue, and can ultimately become a Commission policy decision.

RESOURCES

My biggest concern for internal safety culture is the growing lack of resources (in the reactor inspection program). We don't have enough time to 'pull the string'. The number of inspectors we have overly limits what we can support for off-site rotation assignments and training, and makes juggling emergent special inspections at other sites, leave, and other demands impact our on-site inspection time. Two-unit reactor sites are undermanned by resident inspectors. We have more and more new people (in the resident inspector program) that need training and mentoring and this takes greater time spent by the Senior Resident Inspector which encroaches on the time available for inspection. There is no double encumbrance approach to ease staffing transitions. It's hard to see that the reactor sites are the priority, given the staffing levels. (x 2)

In reactor construction inspection program, we are trying to project resource needs and training needs in a new and dynamic environment with great uncertainties. (x 2)

Sometimes our reaction to highly visible issues is far greater than warranted by the actual safety significance and we spend excessive resources on these that take away from other issues of greater significance. (x 2)

Many factors bear on resource decisions (not just safety), but all factors link to the agency Strategic Plan and safety is therefore always an 'undercurrent.' (x 2)

Repeated budget cuts over the years in the materials licensing and inspection area has led to longer re-licensing periods (increased from 5 to 10 years between re-licensing), reduced site visits, and lack of oversight that may have contributed to events like the plutonium spill at NIST. Even sending relatively low-graded (i.e. less experienced) employees to these sites has a beneficial effect on licensee attention to safety.

(OI) case closures (allowing resources to be targeted elsewhere) are based on a very collaborative dialogue with the technical staff, typically using the Allegation Review Board.

Implementing travel in a Region under a continuing CR is a huge challenge. We give priority to the operating facilities and qualification training for our staff, but other training and getting ready for new construction is getting cut back.

Our resource decisions are driven by our Office Vision: Safety, Inclusion, Infrastructure.

Our Office took a task-force approach to look at resource management. The outcome included monthly meetings with all Divisions (including our admin/support Division) to review metrics, budget implementation, etc. This has helped all of us gain a better appreciation of why we do what we do.

The agency-level HR system is too high level for our use, so our Office implemented a “look-ahead” tool to project HR status based on current staffing and recruiting activities.

Our budget formulation process explicitly incorporates consideration of 5 goals:
1. Safety, 2. Security, 3. Openness, 4. Effectiveness, and 5. Management Excellence.

Prioritization of resources needs to be a collaborative effort, including outside affected organizations. A great example of Open Collaborative Working Environment is our high level waste core group who had to deal with significant budget cuts and did so in a very collaborative manner that provides a very good model for others.

This nearly constant management turnover (and thereby reduced stability/consistency in management views) is creating a barrier to good internal safety culture.

Staff turnover is particularly challenging in my Division, particularly at the Branch Chief level. I don't have enough time to train my new staff and I can see the work quality suffer from it. I need very specific regulatory training for my staff, but the workload has prevented me from getting it developed.

We need to constantly ask ourselves what work activities add value (for each 'product line'), what consequence if it were not done, and how we define “value” and “consequence.”

CONTINUOUS LEARNING ENVIRONMENT

We need to look for new hires with good values, link their job to our mission, and reinforce that through awards and recognitions when appropriate. (x 2)

Technical training for our entry level technical employees is at too high a level to attain competence. Specific training is needed on regulations that govern licensing actions. “Safety first” is conveyed during recruiting, but when new employees arrive there is no detailed expectations on regulatory competency so it occurs by trial and error with work in progress.

We are more open and willing to learn from our mistakes, but could better at capturing these for future employees. The Knowledge Management website has too many communities and overlaps – not sure where to go to get info.

We have a weekly meeting to discuss current technical issues and we always invite the NSPDP and new employees from the entire Office. Having a wide spectrum of experienced personnel at these meetings greatly aids in knowledge transfer goals. After the meeting some of our senior technical staff stay behind and offer to answer any questions that the NSPDP and new employees might have.

Knowledge Mgmt/Transfer requires regular communication horizontally and vertically within the organization. Our office uses regular 'roundtable' discussions among staff to help with KM/KT and to instill a common understanding of how to assess safety significance.

KM/KT is aided when we give our employees challenging work opportunities and ensuring they are trained on new technologies being used by licensees.

Internal Safety Culture starts with professional (e.g. technical) competence.

Inspector safety instincts are developed from "nature" (e.g. their knowledge and curiosity) as well as "nurture" (e.g. training and mentoring)

We give priority to updating technical guidance and MDs (knowledge management) and training to new employees, certification (inspector), and refresher training.

We need to give priority to training on lessons learned (e.g. foreign reactor construction experience/challenges, NUREG-1055 Improving Quality and the Assurance of Quality in the Design and Construction of Nuclear Power Plants)

We supplement technical training with staff-led lessons-learned seminars (monthly).

Our investigator (OI) qualification standard includes a line item on regulatory philosophy that is accomplished by pairing with an experienced agency and is signed off only by the Field Office Director.

Training is not the answer to emphasize "internal safety culture." Use Office/Division/Branch meetings to communicate the message.

We need to capture our mistakes (as lessons) and pass them down to future employees. How do we do that now? KM? Communities of Practice? Operating Experience?

Some of my best training occurred as I watched my past management operate.

Rotations to other areas outside of ones expertise forces better listening skills.

Every organizational unit needs to work to ensure they have 'depth' (i.e. backup) for all their job functions. This enhances continuous learning for those staff persons who are the 'backups.'

Continue to emphasize communication skill training for new supervisors and perhaps develop communication skill criteria that must be met for promotion to supervisor.

We routinely conduct technical seminars and use Communities of Practice as part of our knowledge transfer efforts.

Getting field experience through oversight of our licensees and practicing real-time safety judgments during exercises and simulations is crucial to overall staff professional development. This helps reinforce safety concepts that you don't deal with very often.

We should be making a better attempt at capturing the thoughts and recommendations of our senior staff who are retiring or leaving, to get improvement suggestions.

Our self-assessments should be shared with other (similar) Offices.

IT security is an area that undergoes constant rapid change and our IT staff needs frequent training on it (all provided externally by experts).

We are losing focus on providing the necessary training and experience to our younger/newer employees.

PROBLEM IDENTIFICATION, EVALUATION, AND RESOLUTION

We routinely do internal Division-level self-assessments using the Strength-Weakness-Opportunities-Threat (SWOT) analysis technique and this should be considered as a best practice for other Offices. Each Division does 2 per year and presents results at the twice-a-year management retreats. We have started linking these to our mission/goals. We use internal staff suggestions and external surveys (e.g. OPM) as source of suggestions for areas to assess. Actions are tracked to closure. These are sufficient and do not require an expanded "Corrective Action Program" to be added. (x 2)

Self-improvement is NOT a collateral duty and should be planned for and budgeted. However, be careful of imposing requirements on small Offices (remember that 5 large Offices represent three quarters of the total agency FTE). (x 2)

Finding and resolving problems is connected to the "Reasonable Assurance" finding we make each year under the Federal Manager Financial Integrity Act and OMB Circular A-123 (Internal Controls). (x 2)

Our Office has a Corrective Action Program that accepts all self-assessment findings and external audit (e.g. OIG, GAO, etc) findings and tracks action items to closure and includes subsequent effectiveness assessments. It works well because it focuses on higher-level findings (doesn't get bogged down in many smaller issues).

We are great at letting latent problems fester without attention for years and then they suddenly appear or re-appear. Every lesson-learned review seems to show that someone knew the problem existed and what should be done, before it surfaced.

Need to ask more: What did you see that didn't get into your (inspection) report? This also helps knowledge transfer.

We need a lower threshold for entering items in our Agency Lessons Learned Program.

We use our existing processes (e.g. action item and tracking lists, plant issues matrix) very effectively.

We identify issues through implementing an open door policy and by evaluating and providing feedback (mostly verbally).

Our processes for PIE&R are principally ad hoc.

We internally peer-review our inspection reports using a quality check list.

We currently have many mechanisms for identifying and resolving problems. For example, we have an Office procedure that requires routine self-assessments and agency-level programs such as the Generic Issues and Lessons Learned programs. Most importantly we need to constantly self-assess ourselves and continue to learn from these. We could improve these self-assessment processes by making them more systematic (i.e. targeting important areas and tracking corrective actions in a more systematic manner).

In considering whether to add another program (e.g. Corrective Action Program), please consider that we already have too much on our plate as it is.

A corrective action program could be a good idea if implemented at the Office level and if it included effectiveness reviews.

I've used the Office Corrective Action Program and found it had good entry-screening reviews to ensure clarity of issue and resolution approach, and good effectiveness reviews. This program is very good at capturing self-assessment results/actions.

An Office-level corrective action program would not necessarily solve inter-office communication issues, so it needs to exist at a higher level.

Self-assessments required by Office operating plans may not get effectiveness reviews.

We do budget for self-improvement activities, but this is subsumed under the "Administrative" budget line item and can therefore easily get 'lost'. A 5% budget for this is reasonable for large offices and could be centralized for small offices.

ACCOUNTABILITY

Safety responsibility is not currently an explicit performance element or standard in GG-level performance appraisals, and SES contracts are metric-driven.

We need to be willing to take a 'hit' on a performance metric (e.g. schedule) to ensure we resolve a safety concern.

We have management book-reading mini-seminars with branch chiefs to improve communication and leadership skills (a pre-requisite to accountability).

Accountability starts with establishing and communicating clear quality standards and providing day-to-day interaction and informal feedback from supervisors.

We hold inspectors accountable starting with their training, then through inspection debriefs and objectivity visits by managers.

Performance expectation and feedback discussions must always be respectful.

Need well-established roles/responsibilities and expectations

Performance appraisal process should include managers asking “How did I do?” to their employees.

Daily reinforcement of basics (e.g. getting to work on-time).

Hire good people with the right values, then make expectations clear (Office instructions and daily/weekly meetings).

Reactor inspector performance appraisal Elements/Standards currently include “Safety”.

The performance appraisal process creates negative incentive – one weakness in an administrative element can drop the overall grade even though my performance in the safety element is strong.

We inappropriately let metrics drive us – For example, we insist on achieving 100% on a measure even though 95% is still ‘green’ (good). Another example: we go green to red if just one operator exam result is successfully challenged by the licensee. The unintended consequence is more reluctance to fail a candidate if it’s a close call. It is hard to define metrics on quality, but it must be done.

We need to view mistakes as learning opportunities (not blaming exercises), constantly provide feedback to our employees, and actively mentor them.

In our employees Elements and Standards (corporate support office) we include “Customer Support”. As a priority we ensure this is meaningful for each employee (e.g. who are our customers?). As a second priority we emphasize the linkage to the agency mission.

As a first priority we need to get alignment of all leadership on expectations, then secondly we need to use reinforcement tools to evaluate ourselves constantly against a defined set of good leadership characteristics.

SES contracts have Safety and Security in them, but this needs to cascade all the way down through the staff elements and standards.

The word ‘accountability’ has negative connotations. Why not coaching, counseling, or mentoring?

All elements and standards in my Office do not include “Safety Responsibility” for inspectors.

We use the 'check-boxes' on our performance appraisals to link elements to the strategic mission and goals. Our expectation is that the supervisor explains this linkage (but that doesn't always happen with equal effectiveness since supervisors are usually more focused on the problem of the minute).

One of my employees did not get recognized with a cash award for making a good inspection finding because management said such an award would harm the inspector's chance for an end-of-year performance award.

ORGANIZATIONAL DECISION-MAKING

Both managers and staff need complete openness and transparency in the bases for our decisions. This varies widely among managers. (x 2)

We constantly must account for multiple competing pressures in our decisions. For example, Congress wants better security on CsCI, but Agreement States want State control and the public has come to expect the benefits from the use of blood-irradiators.

If the (current) EDO pushes decision-making down to lower staff levels, then senior management shouldn't second guess the decision.

Being open in dialogue and clear about decision bases builds trust and credibility over time, so that when occasional judgment calls are made by management, staff can trust that judgment.

Staff needs to understand the bigger picture regarding decisions and this requires effort by management to get decision rationale back to the staff.

Decision-making must always be a collaborative process – "We need to make a decision but I want to hear every view before making it." For example, we invite interested persons outside of our branch to our branch morning meetings.

For Regional staff it is helpful to hear what is happening at HQ – we used to have a newsletter, but don't anymore.

Sometimes we don't say "why" decisions are made, but we are getting better at it.

All decision processes are not equal – some decisions can rely on 'process' answers (within the 'box') where others require much more collaboration.

We feedback the "why's" of Office-level decisions are monthly current status meetings for the entire Office (e.g. relocation of office).

I was frustrated when our risk analysis for an inspection finding was considered too uncertain to support a greater than very low (i.e. 'green') significance. The decision was also influenced by a concern over our increased workload if the licensee were to contest a decision of greater significance. Getting clear, objective, accurate feedback on decision bases needs to be an expressed commitment by management and then lived.

We (in the Regions) sometimes feel as if HQ creates the policy and makes the technical calls without valuing or trusting us as partners. For example, why does HQ need to 'go on mute' during an internal conference call?

In the late 1970s, our technical staff went out of their way to show they were regulators (not promoters). In the mid-1980s we saw more concern for over-regulation as industry became more organized. The 1994 industry-sponsored Towers-Perrin report (criticizing the NRC for alleged inappropriate regulatory actions) moved the agency toward more accommodation. The Backfit Rule (10 CFR 50.109) has made us think more about cost and burden (as well as safety).

WORK PRACTICES

Schedules are planned with best information available at the time. Quality expectations must be made clear up-front. Any potential impact to planned schedules must not be allowed to 'churn' and must be raised by staff to management and dealt with at the earliest possible time and this expectation must be clear to all associated staff. (x 3)

Schedule and Quality: there is high potential for giving mixed messages to the staff. How do we judge when the significance of an issue rises to the point of requiring work/review stoppage (and schedule slippage) until it is resolved? We need alignment all the way up the management chain on this threshold.

Schedule metrics can adversely and unintentionally impact quality. There is a need to establish clear quality expectations, for both licensees and for staff. Staff experience level is a factor, since schedules may be based on past (more experienced) staff precedents.

Regional schedule goals (e.g. significance determinations) seem to be much more hard and fast than schedule goals at HQ.

Sometimes just meeting our metrics does not necessarily mean we are meeting our mission.

Inspectors need more time to plan inspections, in order to improve their quality. Management meetings with the inspectors prior to inspection can also be very effective to ensuring expectations are clear.

Desktop guides improve consistency of quality for our work products.

Our ROP inspections are becoming 'bean counts', we're spending too much time on significance evaluations and whether or not the licensee identified a finding and not enough time on followup actions, and the feedback process doesn't make significant changes. We should be inspecting more causes, and licensees will follow our lead. Inspection procedures have grown in detail since ROP started (just like they did from 1974 through 1999, in 1999 the ROP cut way back on the detail to try to become more focused).

The concurrence process is our primary quality control tool.

Our credibility (and therefore our effectiveness as regulators) depends on ensuring we produce well-written reports.

WORK PLANNING AND CONTROL

Prioritization of work is too often driven by external factors (e.g. responding to questions from Congress) rather than actual significance.

Our Management Directive for responding to events (MD 8.3) is a good example of a process that tries to balance and work through value conflicts regarding safety and risk. However, sometimes we let ourselves be driven off our core value of reacting commensurately with risk, for example sending a special inspection team to look at the non-safety Vermont Yankee cooling towers.

Schedules should be frequently reviewed by both peers and management.

When prioritizing work, we ask “what are the consequences of not getting it done?”

Our aversion to risk in the nuclear safety arena (i.e. conservatism) unfortunately carries over to resistance to new organizational ideas.

Our Office workload prioritization is driven by the priorities of our customer offices to whom we provide our service.

My manager extensively revises/edits my reports without adding value.

CORPORATE SUPPORT STAFF

Support staff are essential and should be included in any definition of internal safety culture. We might consider adding “nuclear regulatory professional” to our lexicon, to emphasize our inclusion of all types of professional in our agency (offered by a Sr mgr in a technical office) (x 2)

The security of our information systems continues to touch every Office and employee and is critical to our mission. In addition, admin/support staff must play a very large role in Continuity of Operations (COOP) preparedness. This is also crucial to our mission. (x 2)

Our Strategic Plan lacks a Corporate strategic goal. We need to consistently give appreciation for all roles. Our corporate support staff is always represented at our management meetings and participates in decision-making. They hear the safety message and everyone understands the decision bases.

Admin staff supports the Region’s safety priorities by arranging short-notice inspector travel and we have developed desk instructions to help with this. Teamwork is very good in our Region and we see our activities as clearly linked to the Region’s mission and goals.

Regional support staff continue to express concern about the lack of upward mobility and cross-training opportunities for them.

When we improve the efficiency of our processes, then supervisors can focus more on mission-related higher priorities. We need to constantly be adaptable to change.

Technical staff continues to get more resources and senior manager attention than support staff gets. However, all our admin staff get regional-based overview training of NRC/Regional mission and get to tour an actual reactor site.

An event at a site becomes an entire-region issue. Every Division contributes to the response, including our admin and support staff. This demonstrates everyone's commitment and ensure everyone feels included in supporting our safety mission. We reinforce to our admin and corporate support staff that they are a "key element" of success in our Office. This message starts with the Office Director and is emphasized in weekly meetings. Our technical staff is very supportive and appreciative of the support staff.

We bring in outside training for our administrative staff that is not available through the agency. We also support rotational assignments of our admin staff to other jobs within our (Regional) Office.

Our employees need to know where they 'fit' in the agency processes leading to mission accomplishment.

At our Office and Division meetings we always start by first asking the support staff for input, as one means of emphasizing the importance of their role.

My (corporate support) staff doesn't need to feel a direct link to supporting safety. We can see where our jobs provided the necessary support to those who make the actual safety decisions. We just would like to be recognized and valued.

EMPLOYEE OCCUPATIONAL SAFETY CONSIDERATIONS

Employee safety can't be separated from internal safety culture – they are interrelated. Emphasis on occupational safety is a good way to foster a larger safety consciousness. (x 4)

We are working on improving our occupational safety programs from the ground up, including facilities environment (e.g. air and environment testing) and incident response (e.g. accountability for employee whereabouts following evacuation). (x 2)

There seems to be a disparity between Regional Offices on how employee occupational safety equipment is provided for inspectors. Some regions pay for any safety shoe the inspector orders, some provide only a particular make of shoe. Also, some regions pay for physical examinations and some require inspectors to use the licensee's program (for respirator qualification where needed). The agency should be consistent with all employees in protecting their safety and health.

Our Office holds a Safety and Health fair every year during health plan open season and provides updated points-of-contact on a card for getting occupational safety/health equipment.

Workman's compensation payments come out of agency funds and therefore reduce the funds available for mission-related activities. The actual mission-related 'cost' of weak occupational safety practices is not well recognized among agency managers.

MISCELLANEOUS

Don't discount the value of OIG independence and therefore the independent role of their safety culture survey. This gives the results valuable integrity and generates confidence both within the staff and with the public. (x 2)

It will help in Region II (and at HQ) to consolidate our offices again. It will build a better feeling of community and help to assimilate new people into the agency more quickly and effectively. (x 2)

The OIG safety culture and climate survey lacks any kind of significance determination (i.e. not all 'weak' areas are equally important).

NRC does much better than prior agencies I've belonged to regarding personnel decisions. Ours are not politically motivated or related to personal connections.

Are we getting what we want out of the OIG Safety Culture/Climate Survey? We should not rely solely on it to advance our own internal safety culture.

Enlightened Leadership concept has been very helpful in our Office.

We need to re-consolidate our offices as quickly as possible (e.g. HQ, Region II) due to the importance of face-to-face communication.

With a very large influx of new employees, the next OIG Survey results will need to be viewed in that context (newer employees have less experience base to draw from when answering the questions).

*Note: Similar comments received from more than one person are noted parenthetically.

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Staff Input Summary

The Internal Safety Culture Task Force actively solicited feedback from all NRC staff. A web page was established on the internal web site that invited employees to submit suggestions and comments (anonymously, if desired). Task Force members also received input and feedback from various interactions with employees. The following is a summary of the inputs received.

UNDERSTANDING/DEFINITION OF SAFETY CULTURE

General Comments

- It doesn't appear that we have defined what the NRC safety culture is or what it should look like. I think we need to define what constitutes an "NRC" safety culture and then specify what types of attributes demonstrate a strong safety culture within the NRC.
- Need to be as inclusive as possible.
- Internal safety culture would benefit from critical review and rethinking of NRC organizational paradigms.
- Our safety culture does not have to match what we ask licensees to do. There are organizational difference that should be considered.
- Suggested edits to working internal safety culture definition from NSIR mgt: That assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear safety and **security issues** receive attention warranted by their significance. This is internalized and modeled by all NRC individuals, at all organizational levels, through their work activities in support of the agency's mission and guided by the agency's values.
- The agency sends mixed messages: the agency does not promote nuclear power, but internal discussions clearly shows support for construction of new nuclear power plants, Commission allows pro-nuclear groups to have a say in agency actions and guidance, and Commission affords many "drop-in" meetings.
- During project management class, the instructors stated the goal of the project manager is to license new reactors. The role is to conduct safety review, and the project manager is not obligated to license or approve anything. This is a subtle difference but is a safety culture issue.

SAFETY CONSCIOUS WORK ENVIRONMENT/OPEN COLLABORATIVE WORKING ENVIRONMENT

General Comments

- Management:
 - Is not held accountable for resolving or ensuring all issues are comprehensively addressed.
 - Does not know how to prioritize and support the pursuit of issues or concerns raised by staff.
- Value “dumb” questions and tolerate mistakes made in the process of cultivating a questioning attitude. One should not expect safety-related questioning to always or frequently expose issues that need to be fixed.
- Research is not permitted to perform its legislatively mandated function of developing research recommendations. Having researchers and research users reside in separate Offices has created many difficulties over the years. Although technically competent, Research does not have the opportunity to raise questions and issues with licensees and applicants as staff offices do. Research staff generally score lower than other technical offices on surveys. This is because Research staff is isolated and does not feel empowered and encouraged to raise safety related questions and issues.
- Staff (including those who are not directly involved in regulatory matters such as Research) and management’s roles in the process are not clear. It is unclear what the governing process for cases are where an issue falls outside the regulatory duties assigned to staff (those who are not directly responsible for the work, but may non-concur with a regulatory decision based on their expertise). For example: Research staff who generally are not directly involved in formulating the regulations but have service-related work.

Recommendation

- Use informal mechanisms to enhance communication between staff and management about all topics. Approaching management at all levels, while we say it is possible, in some areas, this has not proven effective. I suggest an independent ombudsmen that reports directly to the Commission and Executive Director for Operations (EDO).
- Interoffice technical advisory groups etc. could conceivably be used as forums for Research staff and others to discuss and raise issues or concerns to counterparts in the responsible NRC organizations.

PROBLEM IDENTIFICATION, EVALUATION AND RESOLUTION

General Comments

- It is unclear what process to use to raise a safety related regulatory issue or concern.
- NSIR's "Ask Management Program" is a positive tool that will enhance the staff's opportunities to receive feedback from senior management.
- We do not need a Corrective Action Program (CAP) because we are not like the licensees and do not have the same level of checks, balances and sophistication in our processes necessary to need one. Nothing that we do will have an immediate impact.
- Does NRC look at significant inspections from the perspective of 'could we have seen this coming earlier'?

Recommendation

- There should be an internal web page, something like the existing "Addressing Employee Concerns" web page only more prominent, that comprehensively describes the processes that the staff should use in various situations to raise and resolve safety related issues and concerns.

WORK PRACTICES

General Comments

- The Backfit Rule (10 CFR 50.109) seems NOT to be well understood by many (new?) staff. This has created situations where inspectors or reviewers are potentially 'backfitting' licensees without following the requirements of this rule. The Committee to Review Generic Requirements (CRGR) is an internal watchdog for this, but their scope of review has been severely cut back by the Commission.
- There is a very inconsistent implementation of the enforcement policy across reactors (existing Reactor Oversight Process and traditional enforcement) and fuel facilities. It is also apparent that new inspectors receive conflicting guidance from different senior inspectors and from management.

Recommendation

- Use “The No [Disrespect] Rule” to encourage positive behaviors in work force. Maybe we could adopt this philosophy in an effort to improve our endeavors in safety culture.
- Transcribe all meetings with staff and management and have a third party in all meetings.
- Every supervisor should have a copy of the Constitution.
- Effectively determine safety significance to assure that our response is efficient and appropriate for the circumstance. Ensure that an emphasis on matters that affect safety culture do not result in unintended consequences (follow up on minor daily activities/tasks).

WORK PLANNING & CONTROL

General Comments

- Lack of prioritization often results in the dilution of resources and loss of safety perspective.
- Focusing too much on assuring that all issues are addressed within the internal safety culture can do the same thing.

Procedures

- Until a directive, instruction, or procedure is revised or rescinded, it should not be withheld from the staff.
- Procedures should be revised frequently and incrementally.

ACCOUNTABILITY

General Comments

- Internal safety culture suffers where “fungible” managers (especially first-line supervisors) have little or no domain-specific

knowledge. It is extremely difficult to convey complex technical issues to a boss who has little more domain-specific knowledge than a lay person.

- Drug testing implies that my employer does not trust me and finds it necessary to drug test. It is demoralizing and shows a lack of trust.

Recommendation

- Require that first line supervisors are technical experts in the area they are managing. Without that, the supervisors can not effectively manage work, make decisions, or manage the people working for them.

CONTINUOUS LEARNING ENVIRONMENT

General Comment

- We operate by using Tribal knowledge rather than institutionalizing knowledge.
- There is lack of technical substance in staff qualification programs. Lack of emphasis on development of technical expertise is problematic under use of “fungible” management.

Recommendation

- Consider using something like the Inspector Newsletters to provide good examples of inspector safety focus.
- To improve the safety culture of the agency - especially for new hires (who may be young and not remember or have even been born when Three Mile Island occurred, other examples include the Browns Ferry Fire, Chernobyl, Davis Besse, etc.), consider presenting films on these events. Use a DVD to provide a primer on safety culture and the nuclear industry. Make it a part of new hire training program.
- Supervisors should read the Strategic Plan and communicate the contents to new employees. When new employee comes in, the supervisor should hold a meeting to discuss safety culture and its importance.

ORGANIZATIONAL DECISION-MAKING

General Comments

- Upward communication works best where both parties have the desire and ability to understand the substance of the issues at hand.
- Management decisions are no better than the information and insights on which they are based.

OTHER

- It would be instructive to see what other commenters are saying in this forum and others, including the recent public meeting that I could not attend. All such comments should of course be redacted and summarized as needed to ensure anonymity, enhance clarity, and avoid excessive redundancy.
- The agency should have a Health and Safety Officer to be accountable for safety, health, and environmental issues.
- Provide t-shirts with a message that focuses on safety.
- Observed individuals standing on chairs to retrieve items.
- Concerns with the concept of generally licensed devices.

DIFFERING VIEWS PROCESSES

As part of its outreach to solicit employee inputs, the Task Force invited employees who had previously utilized one of the differing views processes to provide their general thoughts and suggestions on how the NRC can better recognize the value of diverse views, encourage open discussion of issues, and foster more effective use of the Open Door policy throughout all levels of management.

The inputs received are summarized below:

Recommend modifying the DPO process to avoid negative perceptions of Division management that they are being 'bypassed' when higher management is invited to participate in the informal phase of discussion.

Recommend promoting employees who have the courage to identify and elevate concerns. This employee stated that people who do not elevate concerns seem to get promoted over those who do, and that they were aware of one case in which using the Open Door Policy resulted in an adverse impact on an employee's performance rating.

Recommend positive recognition of staff who contribute to the regulatory process through differing views processes; greater day-to-day visibility of senior management and better solicitation of staff inputs in decisions; require DPO filers to have greater opportunity to select DPO panel members; require the panel to address each point of concern; track completion of commitments made in the DPO resolution and hold management accountable for completing them; and don't put mandates on staff without discussing how it affects their work or asking for staff input.

Management responses do not always address the issues raised. Adverse consequences can include being marginalized by both supervisors and peers, re-assignment of tasks/jobs, and performance appraisal ratings. Recommend management demonstrate greater respect, address all concerns raised, and resolve disagreements in a manner that does not force higher management to choose between an employee and their supervisor since there will always be a bias for the supervisor.

Absent any stated basis for a management decision, staff may speculate and this can damage perceptions of integrity, trust, and respect. Newer employees see senior employees becoming frustrated by not getting clear bases for decisions, and this can influence their willingness to raise concerns themselves.

Recommend that the Non-Concurrence Process be revised to clearly explain the situations in which information (regarding the Non-Concurrence) can and will be made publicly available.

Recommend developing a 'staff bill of rights' regarding what staff expects from management and that a Senior Level Service position be established as a "staff advocate general."

Every significant licensing action should involve a senior reviewer for each major review area with approval authority for that part of the review.

Establish an award for raising safety issues and differing views.

Include originating staff members and reviewers on concurrence and bring significant changes during concurrence to their attention.

Release any Non-Concurrences with the final agency action. Ensure all ADAMS documents can be found by searching whether or

not they are in the public domain.

Write a non-retaliation performance measure into management performance plans.

Differing views should be decided by a separate (independent) management organization such as Advisory Committee for Reactor Safety (ACRS) or the Office of the Inspector General (OIG) or even an outside entity such as the National Academies of Science and Engineering.

The DPO process is inherently difficult for submitters because the managers who made the original decision disposition the DPO. When management responses to concerns indicate lack of understanding, it creates a feeling of disrespect. Some managers react very negatively toward any employee who uses the Open Door Policy to meet with higher managers. Some staff feel that management is often too accommodating to licensee input and make decisions without consulting applicable staff and without a clear basis. When we fail to adhere to our own internal procedures, we adversely impact our safety culture.

Documenting a 'disagreement' puts an employee into an adversarial position with their managers and that, although this is business, feelings get hurt and people get offended. Responses to Non-Concurrences are often not made with adequate time to get opinions from objective third parties, and thus it is not an objective process. Both the Non-Concurrence and DPO processes are not meant to resolve staff concerns or openly discuss them.

H

Examples of Office Internal Safety Culture Good Practices

The good practices collected by the Internal Safety Culture Task Force in benchmarking internally within the agency demonstrated that support for many of the characteristic of safety culture already exist and are integrated into the daily work processes of many offices. The Task Force took a broad approach of collecting a wide variety of information. It is important to note that this listing is not intended to be comprehensive but aims to provide a range of examples from existing practices across various offices in the agency.

1	WORK PRACTICES
	<p>A. Some specific examples provided include:</p> <ul style="list-style-type: none"> • Ensuring that Personally Identifiable Information (PII) was secure by handling appropriately and securing specific brief cases to transport PII (NMSS) • Individual staff initiatives to document precedent setting technical positions (NMSS) • Rulemaking staff routinely verifies the availability in the Publicly Available Records System (PARS) library of documents cited in Federal Register Notices and rulemaking public comments before sending the notices for publication or posting the comments on the web (ADM) • The use of procedures, office Instructions, clarification guidance as tools to define expectations of the office, roles, and responsibilities of the staff. (OE, RII, NRR) • Engaging staff participation on briefings when they are involved in projects, promoting visibility of line staff and ownership of projects (NRO) • Respond to administrative staff concerns by briefing technical staff on the correct use of processes (NRR) • Most of the NRC offices listed regularly scheduled staff, branch, project specific, leadership, and counterparts meetings, providing employees the opportunity to speak about their projects and comment on any work topic on their mind. Through these practices, employees are made aware of other employees' projects, have the opportunity to raise concerns, and may suggest improvements. Some examples include: <ul style="list-style-type: none"> ▪ Leadership meetings, "huddles", and expanded leadership meetings (RIII) ▪ Bi-monthly Lunch 'N Learn for staff with NRR Executive Team on topics suggested by staff (NRR) ▪ Weekly Knowledge Transfer Sessions (RIV) ▪ Biweekly staff meetings (OGC)

2	WORK PLANNING AND CONTROLS
	<p>A. Meetings</p> <p>Most of the NRC offices listed regularly scheduled staff, branch, project specific, leadership, and counterparts meetings for ensuring that work processes are on track. . Some examples include:</p> <ul style="list-style-type: none"> • Bi-weekly meetings with management and senior staff (NMSS) • Meetings with Division Directors/Deputy Division Directors and Branch Chiefs/Team Leaders prior to team inspections (Region II) • Branch Chief-Senior Level Advisor meetings (RES) • Office Director Meetings with NRR secretaries (NRR) • Office Director and Deputy Office Director meetings with All NRR supervisors (NRR) • Weekly Scheduling Meeting (NMSS) • Weekly Resource Management Meetings to ensure the effectiveness of the Enterprise Project Management (NRO) • Inspection debriefs (RIV) • Meetings of Technical Discipline Groups (NMSS) • Branch Chiefs meet monthly to plan and control activities that improve Division performance (RII)
	<p>B. Systems and processes</p> <p>Common systems highlighted: the NRC Operating Plan and documented office instructions and procedures (manuals or other).</p> <p>Office specific:</p> <ul style="list-style-type: none"> • NRR’s Center for Planning and Analysis (NRR) • Enterprise Project management system (NRO) • Inspection manual coordination database (NMSS) • Repository Safety Licensing Review Project Plan (NMSS) • Licensing tracking system available (NRR) • SFST Casework Scheduling System (NMSS) • EATS (Enforcement Action Tracking System) (OE) • AMS (Allegation Management System) (OE)

C. Other activities and examples:

- Common repeatable processes are used to ensure the prioritization relative to safety and security of computer systems for NRC (CSO)
- The team approach to the review of the license application, which involves NRC and Center for Nuclear Waste Regulatory Analyses (CNWRA) staff working together (NMSS)
- The High-Level Waste Core Group which consists of all NRC organizations involved in the repository licensing and adjudicatory process (NMSS)
- Peer reviews (NMSS)
- Improvements in infrastructure and control such as updates to the project manager handbook, qualification program, and office procedure updates (e.g., backfit process and Radiation Safety Officer responsibilities) (NMSS)
- Property inventories are conducted to ensure that all property is accounted for and in operational condition (NMSS)
- Redistribution of workflow during a critical heavy load work cycle (ADM)
- The use of the Operating Plan to plan and track work milestones (RES)
- The practice of giving advanced notice to involved offices prior to an enforcement panel to achieve more efficient use of everyone's time, less conflict, and a better product. (OGC)
- Management focuses on quality of casework, not necessarily metrics (OE)

3	Safety Conscious Work Environment/Open Collaborative Working Environment
	<p>A. Support for agency level programs: Differing Professional Opinions (DPO), the Open Door Policy, and the Non-Concurrence Process.</p> <ul style="list-style-type: none"> • Managers periodically discuss these processes (multiple offices) • Upper management’s practices for Open Door Policy (multiple offices) • Management established a specific time each week that they were available for Open Door discussions and publicized that to the staff (Commissioner’s office) • Adopted policy on non-concurrence in office procedure (NRR) • Revision to CNWRA contract to reflect the DPO program (NMSS)
	<p>B. Forums, meetings, and management participation</p> <p>Practices referred to management’s role in making an effort to ensure that everyone has an opportunity to contribute feedback and that all viewpoints are heard. Offices did this by:</p> <ul style="list-style-type: none"> • Addressing individuals specifically to solicit input following a meeting (multiple offices) • Making individual contact such as quarterly personal calls to each resident inspector (RII) • Division Director drop ins and Branch meetings with key senior managers (RIV) • Book discussion groups by Associate Director with supervisors on “Difficult Conversations” (NRR) • Division Director/Deputy Division Director brown bag lunches (RII) • Provide opportunities for alternate views on proposed enforcement actions to the various offices concurring on the action. Request that each office consider the alternate views in their review (RI) • Current events meetings(RII) • Stand-up rumor control meetings (NMSS)
	<p>C. Communications and training</p> <ul style="list-style-type: none"> • Staff is trained to remain calm, friendly, and collected in order to encourage employees to report events in the future (CSO) • Management actively listens to and responds to differing views (multiple offices) • Training responded to administrative staff concerns by briefing technical staff on the correct use of processes (NRR) • ADM-503 (NRR New Employee Orientation and Training Guide) includes a tutorial on the various agency programs for promoting diversity of opinion (NRR) • Administrative Newsletter and launching the NRR Secretaries webpage (NRR)

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| | <ul style="list-style-type: none">• Offer seminar periodically for supervisors on “Enhancing Communications” (NRR)• Created office-wide Safety Culture Task Force (with both technical and administrative staff following the 2005 Safety Culture and Climate Survey (NRR)• Formed the Internal Communications Subcommittee of the Office’s Work Environment Committee to foster other avenues to enhance internal communications (NMSS)• Periodically discuss in office newsletter how safety decisions impact employees work and strategic mission (multiple offices)• Provide avenue for anonymous input for staff suggestions to management (RES)• Periodically discuss in office newsletter how safety decisions were made (NRR) |
|--|--|

4	PROBLEM IDENTIFICATION EVALUATION AND RESOLUTION
	<p>A. Corrective Action Programs</p> <p>Several Offices described programs for identification and tracking of issues (RES, NSIR, NRR, Region II and Region I). Some were described as an "Ask Management" type of system. This type of forum provides the staff with an opportunity to anonymously provide questions (and suggest improvements) to senior management. The process generally uses a web site where staff can submit anonymous questions to senior management. Responses are screened in a variety of ways (e.g., inappropriate questions are redirected or returned) and posted either on the web site or in a newsletter and saved in order to avoid repetition and to keep a knowledge base.</p>
	<p>B. Other improvement processes - other examples provided include:</p> <ul style="list-style-type: none"> • The Safety Evaluation Process, which includes a team approach for developing requests for additional information (NMSS) • Annual security control testing, contingency plan and test, systems security plan update and tri annual System Test and Evaluation (CSO) • Strategy Forms for documenting enforcement cases (OE) • Lean Six Sigma designed to solve work process problems (NRR) • Office Instruction ADM-101, "Corrective Action Program," (NRR)
	<p>C. Frequent communication across levels of the organization:</p> <ul style="list-style-type: none"> • Internal discussions take place expeditiously when potential safety concerns are identified (NMSS) • Stand-up meetings to discuss plant issues and other items of interest (several technical offices/Regions) • Weekly or more frequent meetings and calls to discuss issues (multiple offices) • Continuous work with Regional counterparts to identify solutions in the enforcement and allegations areas (OE)

5	RESOURCES
	<p>A. Examples provided include:</p> <ul style="list-style-type: none">• Management understands the need for technology and focuses on making tools and technology available to staff (OE)• Knowledge Management Center (NMSS)• Criticality Calculation Workstations (NMSS)• Communities of Practice online presence (NMSS)• Laptop Loaner program ensures that equipment is operational and available to support staff in internal/external presentations. (NMSS)• Branch reacted to an unanticipated workload by authorizing overtime for staff (ADM)• Striving to reconsolidate Headquarters, currently housed in 5 different geographic locations. Consolidation is essential for nuclear safety and emergency response.(ADM)• Allocating scarce resources to licensing effort. (NMSS)• Implemented qualification and training programs, enabling personnel to be qualified to perform their assigned tasks (NRR)

6	ORGANIZATIONAL DECISION MAKING
	<p>A. Examples provided include:</p> <ul style="list-style-type: none">• Involving staff on review and decision-making staff concur on reviews and decisions (multiple offices)• Decisions are made in consideration of the agency, office and division needs (multiple offices)• Management focuses on providing staff members with opportunities to brief senior agency management (OE, NRO)• Regional Pre-decisional Enforcement meetings (SERPs) (RIV)• Management available at enforcement panels (OE)• Management team structure supports decision making (NMSS)• Streamlined organizational structure facilitates communications of decisions made (OE)• Leadership Team (composed of Division Directors) add a voice to NRR decision-making (NRR)• Delegating work down to staff level (OE)• Include staff in decisions that support employee wellbeing, i.e., selection for art and decoration for communal and frequented areas, which also helps to improve productivity. (RES)• Director's Council (RI)

7	ACCOUNTABILITY
	<p>A. Roles and responsibilities</p> <ul style="list-style-type: none"> • Roles and Responsibilities are clearly defined in the Yucca Mountain Review Plan(NMSS) • Providing to Project Managers the current Full Time Equivalent (FTE) utilization for their budget items on a monthly basis (NMSS) • Expectations, to include accountability, are clearly set and aligned on between management and staff when assignments are given. Staff are empowered (NMSS) • The enforcement specialist is responsible for their cases (e.g., coordinating the panels, timeliness, etc.) (OE) • New employees have work and responsibilities from the start (OE) • Initiative is recognized (OE)
	<p>B. Guidance/information provided</p> <ul style="list-style-type: none"> • Provide guidance for staff “accountability” with regard to drills (NMSS) • Offer office-wide periodic seminars on the performance appraisal process for both supervisors and staff (NRR) • Revised secretarial elements and standards to provide consistency within grade and across divisions. Conducted open house for secretaries and supervisors to describe and gain input (NRR) • Offered seminar for supervisors and staff, “Fostering a More Meaningful Appraisal Process” (NRR) • Revised ADM-503, “New Employee Orientation and Training Guide,” to include information on the appraisal process (NRR)
	<p>C. Processes and practices</p> <ul style="list-style-type: none"> • Use of the Operating Plan to link specific staff with specific milestones and due dates (RES) • Supervisors are encouraged to meet with their staff quarterly to provide informal performance feedback (NRR) • Daily Branch Chief calls to sites to check on plant status (RIV) • All offices rank their priority work against the work’s contribution to the strategic goals (safety and security) (NMSS) • Weekly communication from the Director or Deputy Director (alternating weeks) often include correlations between the work being done in the offices on a day-to-day basis to the strategic plan, the EDO’s message, or current national or world events (NMSS)

8	CONTINUOUS LEARNING ENVIRONMENT
	<p>Overall, there is support provided by management for training across offices.</p> <p>A. Various formal training opportunities provided:</p> <ul style="list-style-type: none"> • Entry level employees in the Nuclear Safety Professional Development Program (NSPDP) are required to take courses from the NSPDP curriculum (multiple offices) • New hires with prior contracting experience are asked to attend those course that are mission-related (ADM) • Developed Office Instruction ADM-504, "Qualification Program for Technical Staff" (NRR) • Developed Office Instruction ADM-505, "Administrative Training Program" (NRR) • Provide internal office training (OE, NMSS) • Meetings of Spent Fuel Storage and Transportation (SFST) Technical Discipline Groups and monthly seminars (NMSS) • Various specialty knowledge management programs (RES) • Support for monthly technical seminars (RES) • Participation in conferences (multiple offices)
	<p>B. Training opportunities specifically related to leadership, interpersonal skills, and communications.</p> <ul style="list-style-type: none"> • Leadership Team participated in Seven Habits of Highly Effective People training, and staff also had the opportunity to receive this training (RIII) • Leadership Team participated in Enlightened Leadership Training (RIII) • Management retreats are held where experts in the field of leadership and organizational management are brought in (RIII) • Offer seminars for NRR branch chiefs/team leaders on these types of topics (NRR)
	<p>C. Mentoring and on the job training</p> <ul style="list-style-type: none"> • Support for rotations at all levels (e.g., NSPDP through management) (multiple offices) • Senior attorneys provide to new attorneys a 2-hour private, one-on-one, tutorial on the enforcement process. Before the new attorney is assigned enforcement work, the senior attorney continues to be available to provide guidance. (OGC) • New employees get docent (OE)

	<ul style="list-style-type: none"> • Informal mentoring, matching junior and senior staff together (RES) • Use of a team approach to licensing and the knowledge management activities that flow directly from pairing junior with senior staff and contractor with NRC staff (NMSS)
	<p>D. Other learning opportunities</p> <ul style="list-style-type: none"> • One hour on the first Wednesday of the month is set aside to be dedicated solely to training. No meetings will be scheduled during this time (NRO) • Use of Communities of Practice (NMSS) • Use of web-based tools to assist in knowledge transfer (RES) • Management and staff work with international counterparts. Management and staff evaluate domestic and international operating experience (NRR)

I

**Public Meeting Presentations
December 4, 2008**

1. Tracy Dillinger, National Aeronautics and Space Administration (ML090970182)
(<http://www.nrc.gov/about-nrc/regulatory/enforcement/tracy-dillinger-nasa1208.pdf>)
2. Tom Valenti, Baltimore Gas & Electric (ML090970190)
(<http://www.nrc.gov/about-nrc/regulatory/enforcement/tom-valenti-bge.pdf>)
3. John Bresland, United States Chemical Safety Board (ML090970205)
(<http://www.nrc.gov/about-nrc/regulatory/enforcement/john-bresland-us-chem-safetybd.pdf>)
4. David Lochbaum, Union of Concerned Scientists (ML090970211)
(<http://www.nrc.gov/about-nrc/regulatory/enforcement/dave-lochbaum-ucs.pdf>)

J

Appendix J

Three Examples of Internal Safety Culture Framework Integration into the NRC Strategic Plan and Performance and Accountability Systems

Example 1 – Low Intense Approach

ISCTF Recommendation #1	Implementation
Ensure alignment between the agency's Mission, Goals, Objectives, Vision, Values, and Principles with the elements of the proposed framework.	Define the Attitudes portion of the ISC Framework as the set of current Values, Principles, and Vision statements. Describe the ISC Framework in a separate document and reference it in the next Strategic Plan.
Integrate the elements of the framework with the agency's performance management tools both at the organizational and individual level	Identify and/or develop agency-level Performance Monitoring strategies that address the nine characteristics, and include an element in every employee's performance contract or appraisal plan referring to maintaining a strong internal safety culture as described by the ISC Framework.

Example 2 – Moderate Intense Approach

ISCTF Recommendation #1	Implementation
Ensure alignment between the agency's Mission, Goals, Objectives, Vision, Values, and Principles with the elements of the proposed framework.	<p>Combine and integrate the NRC Vision, current Values Statement (in the Strategic Plan), the seven NRC Organizational Values, and the five Principles of Good Regulation.</p> <p>Insert this new 'aspirational' statement into the next Strategic Plan.</p> <p>Develop Strategic Plan Strategies that support the Strategic Goals as well as the aspirations in this new statement.</p>
Integrate the elements of the framework with the agency's performance management tools both at the organizational and individual level	<p>Develop performance monitoring approaches under each Strategy and demonstrate in the annual Performance and Accountability Report that the above Strategies and Performance Monitoring address all of the nine Internal Safety Culture characteristics, down to one or more elements in each employee's performance contract or appraisal plan.</p> <p>Offices use the nine characteristics to help select areas for ongoing self-assessment and improvement initiatives.</p>

Example 3 – High Intense Approach

ISCTF Recommendation #1	Implementation
<p>Ensure alignment between the agency’s Mission, Goals, Objectives, Vision, Values, and Principles with the elements of the proposed framework.</p>	<p>Fully reformulate the NRC Vision, Values Statement (in the Strategic Plan), the seven NRC Organizational Values, and the five Principles of Good Regulation into a new and more concise statement of NRC’s aspirations.</p> <p>Insert this new ‘aspirational’ statement into the next Strategic Plan.</p> <p>Develop Strategic Plan Strategies that support the Strategic Goals as well as the aspirations in this new statement.</p>
<p>Integrate the elements of the framework with the agency’s performance management tools both at the organizational and individual level</p>	<p>Develop performance monitoring approaches under each Strategy and cascade each of these explicitly and in increasing detail or specificity through each level of Operating Plans and related performance metrics, down to elements in each employee’s performance contract or appraisal plan.</p> <p>Each Office implements an on-going self-assessment and improvement program based on evaluating each of the nine ISC Framework characteristics, over a reasonable cycle of time.</p>

K

Be an NRC Team Player

Raising Concerns Is an Employee Responsibility

- Speak Out** Be willing to promptly speak out to your co-workers about mission-related issues. Question assumptions and challenge current practices. Don't be preoccupied with "looking bad," or assume that someone else will handle your issues or concerns.
- Speak Up** Be willing to promptly speak up to your supervisors and managers and those outside of your organization when warranted. Rigorously informed judgement is critical for our safety conscious decision-making. Management can't consider a position it has never heard.
- Speak Often** Be willing to speak often about your concerns. Be persistent in ensuring that your concerns are heard and understood during the decision-making process. Engage in productive dialog, while maintaining personal professionalism and respect for all other NRC employees.

Considering Concerns Is Management's Responsibility

- Listen Openly** Be approachable to employees and actively listen to their views and concerns. Encourage employees to ask questions, suggest new approaches and offer solutions, rather than making them feel that expressing differing views is risky. Don't (intentionally or unintentionally) shut down communication and "chill" the working environment.
- Judge Fairly** Objectively consider different views and alternative approaches. Actively engage in an honest evaluation of all sides of an issue. Make conclusions that are open, unbiased, and consistent with the agency's safety mission.
- Act Accordingly** Take prompt and committed actions. Be willing to "go to bat" for employees and their different views. Words must be followed up with actions, and those actions must be consistent with the agency's safety mission.

Respect Is Key to Being an NRC Team Player!!

- Respect for each other as diverse individuals.
- Respect for each other as professionals.
- Respect for different views and alternative approaches.
- Respect for individual privacy.
- Respect for the importance of the agency's safety mission.

To learn more about expectations for an open, collaborative working environment and about ways to raise differing views, including the NRC's Open Door Policy, Non-Concurrence Process, and Differing Professional Opinions (DPO) Program, contact Renee Pedersen, Differing Views Program Manager: (301) 415-2741, email DifferingViews.Resources@nrc.gov.

L

List of Abbreviations and Acronyms

Abbreviation/ Acronym	Description
ACRS	Advisory Committee on Reactor Safeguards
ADM	Office of Administration
AES	Annual NRC Employee Survey
AMS	Allegation Management System
ARB	Allegation Review Board
ASLPB	Atomic Safety and Licensing Board Panel
BGE	Baltimore Gas & Electric
BP	British Petroleum
CAP	Corrective Action Program
CFR	Code of Federal Regulation
CNWRA	Center for Nuclear Waste Regulatory Analyses
COL	Combined Operating License
COOP	Continuity of Operations Plan
CR	Continuing Resolution
CRGR	Committee to Review Generic Requirements
CSO	Computer Security Office
DEDMRT	Deputy Executive Director for Materials, Waste, Research, State, Tribal, and Compliance Programs
DPO	Differing Professional Opinions
DPV	Differing Professional Views
DVD	Digital Video Disc
DVOL	Differing Views Office Liaison
EATS	Enforcement Action Tracking System
EDO	Executive Director for Operations
ERLLTF	Effectiveness Review Lessons Learned Task Force
FAA	Federal Aviation Administration
FTE	Full-time Equivalent
FY	Fiscal Year
GAO	Government Accountability Office
HGM	Management and Engineering Consulting Firm
HQ	Headquarters
HR	Human Resources
IAEA	International Atomic Energy Agency
INPO	Institute of Nuclear Power Operations
INSAG	International Nuclear Safety Advisory Group
ISC	Internal Safety Culture
ISCTF	Internal Safety Culture Task Force
ISPPI	Institute for the Study of Public Policy Implementation
IT	Information Technology
KM	Knowledge Management

List of Abbreviations and Acronyms

Abbreviation/ Acronym	Description
KSA	Knowledge, Skills, and Abilities
KT	Knowledge Transfer
LLTF	Lessons-Learned Task Force
MD	Management Directive
NASA	National Aeronautics and Space Administration
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology
NMSS	Office of Nuclear Material Safety and Safeguards
NRC	Nuclear Regulatory Commission
NRO	Office of New Reactors
NRR	Office of Nuclear Reactor Regulation
NSIR	Office of Nuclear Security and Incident Response
NSPDP	Nuclear Safety Professional Development Program
NTEU	National Treasury Employees Union
NTSB	National Transportation Safety Board
NUREG	NRC Technical Report Designation
OCWE	Open, Collaborative Working Environment
OE	Office of Enforcement
OI	Office of Investigations
OIG	Office of the Inspector General
OPM	Office of Personnel Management
PARS	Publicly Available Records System
PIE&R	Problem Identification Evaluation and Resolution
PII	Personally Identifiable Information
PRA	Probabilistic Risk Assessment
RAI	Request for Additional Information
RDD	Radiological Dispersal Device
RES	Office of Nuclear Regulatory Research
RI	Region 1
RIC	Regulatory Information Conference
RII	Region 2
RIII	Region 3
RIS	Regulatory Information Summary
RIV	Region 4
ROP	Reactor Oversight Process
SALP	Systematic Assessment of Licensee Performance
SCCS	Safety Culture and Climate Survey
SCWE	Safety Conscious Work Environment

SERP

Significance and Enforcement Review Panels

List of Abbreviations and Acronyms

Abbreviation/ Acronym	Description
SES	Senior Executive Service
SFST	Spent Fuel Storage and Transportation
SLS	Senior Level System
SOARCA	State-of -the- Art Reactor Consequences Analyses
SRM	Staff Requirements Memorandum
SWOT	Strength – Weakness – Opportunity – Threat
WPC	Work Planning and Control