

POLICY ISSUE NOTATION VOTE

January 5, 2011

SECY-11-0005

FOR: The Commissioners

FROM: R. W. Borchardt
Executive Director for Operations

SUBJECT: PROPOSED FINAL SAFETY CULTURE POLICY STATEMENT

PURPOSE:

To request Commission approval to publish the final safety culture policy statement in the *Federal Register*.

SUMMARY:

In response to Staff Requirements Memorandum (SRM)-COMGBJ-08-0001, "A Commission Policy Statement on Safety Culture," dated February 25, 2008, and SRM-SECY-09-0075, "Safety Culture Policy Statement," dated October 16, 2009, the U.S. Nuclear Regulatory Commission (NRC) staff published a draft safety culture policy statement in the *Federal Register* in November 2009 for a 90-day public comment period, which was subsequently extended until March 1, 2010, in response to requests by several stakeholders. After evaluation of the public comments received and the staff's additional outreach efforts, including public workshops, public meetings and teleconferences, and participation in various industry forums, the staff published a revised draft safety culture policy statement in the *Federal Register* in September 2010 for a 30-day comment period. The many activities the staff engaged in, including consideration of the comments from the September 2010 *Federal Register* notice (FRN) and stakeholder input from an additional public meeting, informed the development of the final safety culture policy statement through a spectrum of views and provided the necessary foundation for a safety culture policy applicable to the entire nuclear industry. Additionally, the staff developed the Statement of Policy cognizant that individuals and organizations performing regulated activities bear the primary responsibility for safely handling and securing regulated materials, while the Commission, as the regulatory agency with an independent oversight role, reviews the performance of those individuals and organizations through its inspection and assessment processes. The staff recommends that the Commission approve the final safety culture policy statement (Enclosure 1).

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BACKGROUND:

In February 2008, the Commission issued SRM-COMGBJ-08-0001, which directed the NRC staff to expand the Commission's policy on safety culture to address the unique aspects of security and to ensure that the resulting policy is applicable to all licensees and certificate holders. The Commission also directed the staff to answer several additional questions, including: (1) whether safety culture as applied to reactors needed to be strengthened; (2) how to increase attention to safety culture in the materials area; (3) how stakeholder involvement can most effectively be used to address safety culture for all NRC and Agreement State licensees and certificate holders, including any unique aspects of security; and (4) whether publishing the NRC's expectations for safety culture would be best accomplished in one safety and security culture statement or in two separate statements while still considering the safety and security interface.

To address the Commission's direction, the staff reviewed domestic and international documents related to safety culture and considered NRC experience and lessons learned. Additionally, the staff sought insights and feedback from external stakeholders by providing information in a variety of forums, such as several stakeholder organization meetings, newsletters, and teleconferences, and by publishing questions developed to address the Commission direction in the February 9, 2009, FRN, "Safety Culture Policy Statement: Public Meeting and Request for Public Comments." Additionally, the staff developed draft characteristics of a positive safety culture and presented them at a February 2009 workshop, "Development of a Policy Statement(s) on Safety and Security Culture," which involved participation from a broad range of stakeholders, including representation from the Agreement States. Mindful of the increased attention to the important role of security, the staff also sought input from the workshop participants on whether there should be a single safety culture policy statement or two policy statements addressing safety and security independently while considering the interface of both. Before providing its recommendations to the Commission, the staff developed a draft definition of safety culture that modified the definition developed by the International Atomic Energy Agency's (IAEA) advisory group, the International Nuclear Safety Group, to make it applicable to all NRC-regulated activities and to address security.

Based on its review and stakeholder feedback, in SECY-09-0075, "Safety Culture Policy Statement," dated May 18, 2009, the staff provided for Commission approval and publication in the *Federal Register* a single draft safety culture policy statement. The draft safety culture policy statement acknowledged the significance of both safety and security, and the interface of both. Additionally, in response to the Commission's questions, the staff: (1) concluded that the NRC's oversight of safety culture as applied to reactors has been strengthened, is effective, and continues to be refined in accordance with the existing Reactor Oversight Process (ROP) self-assessment process; (2) described actions taken and planned for increasing attention to safety culture in the materials area; and (3) described actions taken and planned for most effectively using stakeholder involvement to address safety culture, including any unique aspects of security, for all NRC and Agreement State licensees and certificate holders.

In SRM-SECY-09-0075, the Commission directed the staff to: (1) publish the draft safety culture policy statement for no fewer than 90 days; (2) continue to engage a broad range of stakeholders, including the Agreement States and other organizations with an interest in nuclear safety, to ensure that the proposed final policy statement presented to the Commission considers a broad spectrum of views and provides the necessary foundation for safety culture

applicable to the entire nuclear industry; (3) make the necessary adjustments to encompass security within the statement; (4) seek opportunities to comport NRC terminology, where possible, with that of existing standards and references maintained by entities regulated by the NRC; and (5) consider incorporating suppliers and vendors of safety-related components in the safety culture policy statement.

DISCUSSION:

Outreach and Efforts to Develop Common Terminology

As part of its effort to actively engage stakeholders, including the Agreement States, the NRC held a second safety culture workshop February 2–4, 2010, that provided a venue for interested parties to comment on the draft safety culture policy statement. The additional goal of this 3-day workshop was for panelists representing a broad range of stakeholders to reach alignment, using common terminology, on a definition of safety culture and a high-level set of characteristics (renamed “traits” during the workshop) that describe areas important to a positive safety culture. The workshop panelists, with the assistance of the other workshop attendees, developed both (Enclosure 2).

From the February 2010 workshop through the close of the second public comment period on the revised draft safety culture policy statement on October 18, 2010, and into November 2010, the staff participated on panels and made presentations at various industry and organization forums. The staff conducted these activities to provide information to stakeholders about the development of the safety culture policy statement, to obtain additional input, and to ascertain whether the draft definition and traits developed at the February 2010 workshop accurately reflect a broad range of stakeholders’ views. In response to Commission direction in SRM-SECY-09-0075, the staff focused significant attention on meetings involving the Organization of Agreement States and NRC materials licensees (Enclosure 3).

On July 15, 2010, the NRC held a public teleconference with the panelists who participated in the February 2010 3-day workshop to discuss the status of outreach activities associated with the development of the safety culture policy statement. At that meeting, the panelists reiterated their support for the definition and traits developed at the February 2010 workshop as a result of their outreach with their industry colleagues. This position aligns with the comments that staff received at the various outreach activities. On September 16, 2010, the staff held an additional teleconference to provide information on the initial results of a validation study conducted by the Institute for Nuclear Power Operations (INPO). The study was conducted, in part, to see whether and to what extent the factors that came out of INPO’s safety culture survey supported the traits identified in the February 2010 workshop. The INPO factors do support the traits (Enclosure 4).

Based on its review and stakeholder feedback, the staff published the revised draft safety culture policy statement in the *Federal Register* on September 17, 2010, for a 30-day public comment period. The NRC held a public meeting on September 28, 2010, in the Las Vegas Hearing Facility, Las Vegas, NV, which was simultaneously broadcast in the Commission Hearing Room in Rockville, MD, and over the internet via web streaming in order to allow remote participation. The goals of the September FRN and meeting were to provide additional opportunities for stakeholders to comment on the revised draft policy statement, including the revised definition and traits, and to discuss the information gathered from the outreach activities

that had occurred since the February 2010 workshop. Additionally, a representative from INPO presented information on the validation study that INPO conducted as part of its efforts to help establish a technical basis for the identification and definition of areas important to safety culture. A member of the Office of Nuclear Regulatory Research also presented findings related to the oversight of the INPO study.

Development of the Proposed Final Policy Statement

The proposed final Statement of Policy is based on the staff's implementation of the Commission's direction in SRM-COMGBJ-08-0001 and SRM-SECY-09-0075; the staff's evaluation of the public comments received on the November 2009 and the September 2010 FRNs; information exchanged during the public meetings held in February 2009, and February, July, and September 2010; the views expressed by stakeholders during the Commission briefing in March 2010; and informal dialogue with various stakeholders during the staff's additional outreach efforts from the February 2010 workshop until November 2010. In addition, the staff considered all comments received after the public comment period ended on October 18, 2010 (Enclosure 5).

The following paragraphs provide the specific information that was used in the development of the proposed final policy statement, including the changes that were made to the November 2009 draft policy statement:

1. The Statement of Policy adopts the February 2010 workshop definition and traits of a positive safety culture; thus, neither the definition nor the traits include the term "security." The involved NRC program offices expressed varying views on the removal of the term "security" from the definition and traits. After internal discussion, alignment was reached on adopting the workshop definition and traits because the views in favor of removing this term resonated with most of the staff and were strongly supported by stakeholders. Stakeholder support was based on the view that an overarching safety culture addresses both safety and security and does not need to single out security in the definition any more than it would single out other essential programs, such as radiation protection or emergency preparedness. To ensure that security is appropriately encompassed within the Statement of Policy, the staff added a preamble to the traits in the Statement of Policy and retained the robust discussion of security contained in the November 2009 FRN, including the importance of considering the interface of safety and security in the proposed final policy statement. The staff discussed the removal of the term "security" during the Commission briefing in March 2010.
2. The Statement of Policy includes the traits (i.e., high-level descriptions of areas important to a positive safety culture). The staff expressed different views on whether or not to include the traits in the Statement of Policy and carefully considered the pros and cons of doing so in reaching its recommendation.

The draft policy statement did not include the characteristics (now described as "traits") in the actual draft Statement of Policy. The staff initially developed the draft characteristics based on a variety of sources, including the 13 safety culture components used in the ROP, and included more detail than the traits included in the proposed final Statement of Policy. The basis for the staff's original decision to include the

characteristics in another section of the draft policy statement but not in the actual draft Statement of Policy was threefold. First, it would keep the draft Statement of Policy brief and concise; second, it would maintain the draft Statement of Policy at a high level; and third, it would not invalidate the characteristics' standing as part of the draft policy statement to place them in another section of the policy statement. Although SECY-09-0075 included a differing professional opinion supporting inclusion of the characteristics in the draft Statement of Policy, the decision was made at that time to locate them in another section of the draft policy statement.

The November 2009 FRN specifically requested comments on whether the characteristics should be included in the Statement of Policy itself. Some commenters indicated that they would prefer not to include the characteristics in the actual Statement of Policy or that they agree with the original decision to include the characteristics in their own section of the policy statement. Several comments indicated that adding the characteristics to the Statement of Policy itself would help to clarify the Commission's expectations.

As part of the effort to develop common terminology, the stakeholders at the February 2010 workshop replaced the term "characteristics" with the term "traits." The traits developed at the February 2010 workshop provide a high-level description of the areas important to a positive safety culture. As such, the traits do not have the level of detail that was included in the draft characteristics. Thus, even with inclusion of the traits, the Statement of Policy remains brief and concise and, at the same time, this approach also provides high-level detail that was not in the draft Statement of Policy. Including the traits in the Statement of Policy rather than in the larger policy statement visually supports their standing as part of the Commission's expectation that these are the areas that the regulated community should consider as it addresses a safety culture framework. Finally, as the Statement of Policy points out, the list of traits was not developed for inspection purposes nor does it represent an all-inclusive list of areas important to a positive safety culture.

3. Implementation is not directly addressed in the policy statement which sets forth the overarching principles of a positive safety culture. If the Commission approves the Statement of Policy and provides direction to the staff, the program offices responsible for licensing and oversight of the affected entities will work with their constituents, who bear the primary responsibility for safely handling and securing regulated materials, to address next steps and specific implementation issues (Enclosure 6).
4. The Statement of Policy recognizes the diversity of the various organizations that are included and the fact that some organizations have already spent significant time and resources in the development of programs and policies to support a positive safety culture. The Statement of Policy notes that the Commission is aware of this and will take this information into consideration as the regulated community addresses the Statement of Policy.
5. Because there were questions about the Commission's use of a policy statement rather than a regulation to achieve its goals, the staff provided a brief discussion of these

differences in the September 2010 FRN, noting that policy statements, though not enforceable, can be used to express the Commission's expectations and guide the activities of the NRC staff and the regulated community. The September 2010 FRN concluded this discussion by noting that, although the option to consider rulemaking exists, the Commission believes at this time that developing a policy statement is a more effective way to engage the broad scope of entities NRC regulates.

6. The Statement of Policy incorporates vendors and suppliers of safety-related components. Some stakeholders raised concerns about how implementation would be carried out, particularly in cases where vendors and suppliers are located outside NRC jurisdiction. Additionally, they indicated that including these entities might have a negative impact on licensees' ability to work with some vendors or suppliers. However, there was significant support for the position that vendors and suppliers of safety-related components should develop and maintain a positive safety culture in their organizations for the same reasons as other NRC-regulated entities.
7. While the majority of comments on the September 2010 FRN indicated that neither the Statement of Policy nor the traits should discuss complacency, the staff's evaluation of the comments from both the November 2009 and September 2010 FRNs led the staff to conclude that complacency should be considered in a positive safety culture. To accomplish this, the staff added the trait, "Questioning Attitude," to the traits included in the Statement of Policy.

Internal and External Safety Culture Interface

In response to Commission direction in 2008 to identify potential improvements of the NRC's internal safety culture, the staff formed the Internal Safety Culture Task Force from October 2008 to May 2009, which developed a set of recommendations for continuous improvement, provided in SECY-09-0068, "Report of the Task Force on Internal Safety Culture," dated April 27, 2009. The staff is implementing the task force recommendations, as noted in SECY-10-0009, "Internal Safety Culture Update," dated January 26, 2010. Separately, the NRC's Office of the Inspector General conducts an independent Safety Culture and Climate Survey every three years, the last one in May 2009. The NRC is taking a combination of agency-wide and office-specific actions to address the areas for improvement identified by the staff's analysis of the results of the survey.

Once the safety culture policy statement is finalized, the agency will evaluate its internal safety culture activities and initiatives to ensure consistency with the underlying tenets expressed in the Statement of Policy. In order to ensure effective coordination, the staff supporting both internal and external safety culture activities will continue to work together closely and share information, experiences, and resources on an ongoing basis.

COMMITMENTS:

The staff will continue to seek ways to engage a broad range of stakeholders, including the Agreement States and other organizations with an interest in nuclear safety, in the roll-out phase of the policy statement.

The Office of Enforcement (OE) will continue to work with the program offices after the Policy Statement's expected issuance, supporting roll-out, communications, and training efforts, as appropriate.

RECOMMENDATIONS:

The staff recommends that the Commission approve the proposed final safety culture policy statement for publication in the *Federal Register*.

RESOURCES:

Most of the offices have not specifically budgeted for safety culture roll-out activities in 2011 and 2012; therefore, if the Commission directs the staff to move forward at this time, these offices will have to go through the planning, budgeting, and performance management process. OE has budgeted two full-time equivalents (FTE) for 2011 and 2012 for external safety culture activities. The Office of Federal and State Materials and Environmental Management Programs (FSME) anticipates that 0.5 FTE (0.2 FTE in FSME, 0.1 in Region I, 0.1 in Region III, and 0.1 in Region IV) would be required in the byproduct materials program for the commitments described in this paper in 2011 and 2012. The Office of New Reactors estimates that it would need up to 1.5 FTE to evaluate possible revisions to existing guidance for the construction oversight process and to develop implementation review guidance for new reactor vendors and suppliers. The Office of Nuclear Security Incident Response plans to ask for 0.3 FTE for implementation in 2013. The Office of Nuclear Reactor Regulation does not anticipate the need for additional FTE for implementation.

COORDINATION:

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

/RA Michael F. Weber for/

R. W. Borchardt
Executive Director
for Operations

Enclosures:

1. NRC Final Safety Culture Policy Statement
2. Definition and Traits of a Positive Safety Culture
3. Stakeholder Outreach Activities
4. NEI/Institute for Nuclear Power Operations Safety Culture Construct Validation Study
5. Public Comments
6. Implementation

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