July 18, 2008

MEMORANDUM TO: Peter Habighorst, Chief */RA/*
Fuel Manufacturing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

FROM: Amy M. Snyder, Senior Project Manager */RA/*
Fuel Manufacturing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

SUBJECT: JUNE19, 2008: SUMMARY OF THE OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS, SAFETY CULTURE PILOT WORKSHOP

Enclosed is the summary of the June 19, 2008, Office of Nuclear Material Safety and Safeguards (NMSS), Safety Culture Pilot (Pilot) Workshop, conducted as part of the 2008 Fuel Cycle Information Exchange (FCIX) Conference. The purpose of the workshop was to inform stakeholders of the NMSS Safety Culture Pilot Phase I accomplishments, and to obtain input regarding the options for the Pilot. The workshop was facilitated by Lance Rakovan, from the Office of the Executive Director for Operations, Communication Innovation Budget Branch. Approximately 50 people attended the workshop which lasted the full 2.5 hours.

As indicated at the Workshop, the summary will be placed on the FCIX Conference and the Office of Enforcement's Safety Culture Web sites within 30 days of the workshop.

CONTACT: Amy Snyder, NMSS/FCSS
(301)492-3225

Enclosure:
Workshop Summary

cc: Lance Rakovan
Isabelle Schoenfeld
Tina Ghosh
June Cai
James Firth
Jay Henson
Nilda Rivera
Amy Lueberring
Ray Wharton

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**Summary of US Nuclear Regulatory Commission**
**Office of Nuclear Material Safety and Safeguards Safety Culture**
**Workshop at the 2008, Fuel Cycle Information Exchange**
**June 19, 2008**

The purpose of the June 19, 2008, meeting was to discuss with stakeholders the Office of Nuclear Material Safety and Safeguards (NMSS) Division of Fuel Cycle Safety and Safeguards (FCSS) Safety Culture pilot. The US Nuclear Regulatory Commission (NRC) staff presented preliminary results from the data gathering activities in Phase I of the pilot, and solicited input from stakeholders on options for implementation of the pilot. NRC's presentation slides are available at: http://www.nrc.gov/public-involve/conferences.html (under Fuel Cycle Information Exchange – 2008) and http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html (under Public Meetings and Materials).

During the NRC presentation on the background for the pilot, a stakeholder asked what endpoint the NRC is trying to achieve, and what specific direction was provided to the NRC staff. The NRC staff explained that the goal is to assess whether the current fuel cycle inspection and assessment program could be enhanced with respect to safety culture, and whether lessons learned could be applied from the safety culture reactor oversight process (ROP) safety culture enhancements. The NRC staff discussed a Commission Staff Requirements Memorandum that referred to continuing the initiative after it had begun, and Martin Virgilio's speech at the 2006 Fuel Cycle Information Exchange about operating experience that shows safety culture contributes to events.

A couple of stakeholders expressed concern that the initiative may not be consistent with a regulator's role, which is to set requirements and make sure licensees follow them. A stakeholder expressed concern that this initiative seemed like it was moving beyond regulatory space and trying to add safety margin. There were also questions about what the NRC means when it says it will not regulate a licensee's safety culture. The NRC staff explained that the goal is to improve NRC's regulatory process and develop tools to make better use of insights from inspections, but that NRC would not take action unless there are regulatory violations. Safety culture enhancement of the FCSS inspection program could provide an additional layer of insights to help NRC focus on problem areas (based on violations, and their causal factors) before a serious problem (like the Davis Besse event) can arise. Another stakeholder expressed concern that licensees feel that the safety culture enhanced oversight approach for reactors is not working. NRC staff responded that through the Reactor Oversight Process (ROP) self-assessment program the NRC is currently assessing all feedback, including that from the Nuclear Energy Institute and the Regional Utilities Groups; some changes are planned, but the feedback does not indicate that the process is not working. In addition, the NRC staff stated that the goal is not to impose the ROP on fuel cycle facilities, but rather to assess whether the similar beneficial oversight tools in the area of safety culture could be developed and used for fuel cycle facilities, and take advantage of lessons learned from the ROP enhancements.

A couple of stakeholders asked about the appropriate role of the Institute of Nuclear Power Operations (INPO) versus the NRC with regard to licensees' safety culture, and suggested that perhaps it is more appropriate for INPO to use its existing safety culture criteria and apply it to fuel cycle facilities. NRC staff responded that NRC worked with INPO during the development of safety culture enhancements for the ROP, and changed some of the wording of the safety

culture components after comparing them to INPO's safety culture principles and attributes, to gain commonality. Because of the NRC's need to be transparent as a regulator, it would be challenging to rely on INPO's processes which are non-public and confidential. In addition, INPO's focus is on excellence, which goes beyond adequate safety. The NRC recognizes that INPO supports nuclear safety, but NRC and INPO's roles are different.

One stakeholder stated that INPO and the utilities expended many resources to formulate good safety culture components, and the result is that the INPO attributes are easily understood. The stakeholder expressed concern that in comparison, the NRC's components are confusing. The NRC staff responded that NRC is in the process of revising the components and there will be opportunity for stakeholder feedback. Some of the key issues that are planned to be addressed in the revision include: reducing redundancy, including security where appropriate, reducing confusion for inspectors in deciding which aspect within a component is appropriate, clarifying the components, and merging safety-conscious work environment and problem identification and resolution.

A stakeholder asked whether the NRC would use safety culture information in deciding whether the corrective action for a violation is adequate. NRC staff responded that one of the options NRC will explore includes reviewing and assessing the enforcement process to identify any beneficial enhancements.

During the discussion of the pilot implementation options, many stakeholders expressed their agreement that safety culture is important. One stakeholder further expressed that arriving at a common understanding of safety culture concepts and terminology in the fuel cycle facility community, and increased education for inspectors and staff, would be beneficial. However, stakeholders expressed a number of concerns about the NRC's potential direction in enhanced oversight, which is discussed below.

A number of stakeholders supported the "No Action" alternative and offered various reasons. One stakeholder expressed concern that NRC might inappropriately delve into the realm of management, or that the NRC's enhanced oversight process might have the inadvertent consequence of undermining management strengths at licensee facilities. One stakeholder expressed concern that increased inspector focus on the corrective action process, self assessments, and other safety culture component areas, could have a chilling effect on workers and the unintended consequences of reduced reporting (of problems or issues). A couple of stakeholders expressed concern that adding safety culture insights to inspection procedures would be subjective and result in disagreements between the NRC and licensees. One stakeholder expressed that safety culture can not be inspected, but rather assessed; hence it would be difficult to tie safety culture to inspection procedures. One stakeholder expressed the view that appropriate mechanisms to detect problems are already in place in NRC's current oversight program. One stakeholder recommended exploring the increase use of the Alternate Dispute Resolution (ADR) process and considering whether the program could be expanded to address safety culture issues, and pointed to the Nuclear Fuel Services (NFS) ADR case as an example. The NRC staff responded that although the NFS ADR result was positive, it was complicated and it is not clear whether that is a case to emulate. In response to the other concerns, the NRC staff responded that the safety culture components and any changes in the inspection programs will be used in a pilot format, and stakeholder feedback will be collected periodically during identification and development of any potential enhancements. In addition, whatever option is selected for the pilot will have accompanying inspector and staff training to ensure consistent understanding and application.

Stakeholders expressed a number of concerns during the discussion of Option 2. One stakeholder commented that the 13 safety culture components are subjective and some areas are very sensitive, and the proposed approach, would add more burden in the regulatory process with little value. One stakeholder expressed the view that what NRC can do in terms of conducting assessment of safety culture is not as strong as what the licensees can do for themselves, and it would be difficult for inspectors to make cogent assessments of safety culture issues. One stakeholder expressed the view that there needs to be an incentive for sites that are not making an adequate effort in safety culture assessments. One stakeholder commented that although the INPO process is not transparent to the public, that lack of transparency is important to the critical feedback that can be provided to the site. One stakeholder stated that licensees have made improvements without being forced, through their corrective action programs, and expressed concern that the NRC enhancements might hurt management culture at the licensee facilities. One stakeholder stated that all safety culture components are important, there should not be too much focus on a subset of components, and that safety culture goes beyond the 13 components identified by the NRC. The NRC staff responded that more detailed definitions (aspects) are available for each component but not provided at this meeting; these details were developed for reactors but are yet to be developed for the FCSS environment. In addition in the ROP, certain thresholds must be reached before actions are taken by the NRC (i.e., one safety culture aspect contributor to one inspection finding does not automatically result in required actions by the licensee). NRC also agreed that all components are important.

During discussion of Option 3, a stakeholder stated that NRC needs to be clear about inspection versus assessment, and felt that it would be naïve to believe safety culture could be directly translated into the inspection program.

During discussion of Option 5, one stakeholder asked why this option includes security and safeguards specifically while the other options do not. NRC responded that Option 5 is an integrated, comprehensive option. Other stakeholders commented that safety culture is not limited to just nuclear safety, and it is not possible to have a strong safety culture without consideration of security; and that NRC should be careful in using the words, and distinguishing between, safeguards and security. The NRC staff stated that during the interviews of both NRC staff and site licensee staff, interviewees were able to see the applicability of the safety culture components to security.

In the closing discussion, a stakeholder asked whether the interview questions used during the information collection phase of the pilot will be provided in the final report, and NRC staff answered affirmatively that they would be. Another stakeholder asked who would be writing the Temporary Instruction (TI) for implementation of the pilot and whether regional staff would be involved. NRC staff responded that yes, Region II had been fully engaged throughout the activities and would be part of the team developing the TI, if management selected an option that involved such an activity. One stakeholder expressed the concern that causal analysis takes teams of people over weeks of time, and if inspectors are expected to identify causal factors, adequate resources will need to be built into the process.

The NRC staff closed with the reminder that this was the first of many planned interactions where stakeholder input will be sought, and encouraged stakeholders to provide any written feedback to the NRC project lead by July 21, 2008.