March 15, 2006

MEMORANDUM TO: ACRS Members

FROM: John H. Flack, Senior Technical Advisor,

SUBJECT: CERTIFICATION OF THE MINUTES OF THE MEETING OF THE JOINT ACRS SUBCOMMITTEE ON HUMAN FACTORS AND RELIABILITY & PROBABILISTIC RISK ASSESSMENT, JANUARY 25, 2006 - ROCKVILLE, MARYLAND

The minutes of the subject meeting, issued March 7, 2006, have been certified as the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachment: As stated

electronic cc: J. Larkins
A.Thadani
M.Snodderly

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

MEMORANDUM TO: John H. Flack, Senior Technical Advisor

FROM: Mario Bonaca, Acting Subcommittee Chairman
Joint Subcommittee on Human Factors and Reliability and Probabilistic Risk Assessment

SUBJECT: CERTIFICATION OF THE MINUTES OF THE MEETING OF THE JOINT ACRS SUBCOMMITTEE ON HUMAN FACTORS AND RELIABILITY & PROBABILISTIC RISK ASSESSMENT, JANUARY 25, 2006 - ROCKVILLE, MARYLAND

I do hereby certify that, to the best of my knowledge and belief, the minutes of the subject meeting on January 25, 2006, are an accurate record of the proceedings for that meeting.

Mario V. Bonaca 3/10/06

Mario V. Bonaca, Date
Acting Subcommittee Chairman

PRE-DECISIONAL

March 7, 2006

MEMORANDUM TO: Mario V. Bonaca, Acting Subcommittee Chairman
Joint Subcommittee on Human Factors and Reliability and Probabilistic Risk Assessment

FROM: John. H. Flack, Senior Technical Advisor

SUBJECT: WORKING COPY OF THE MINUTES OF THE MEETING OF THE JOINT ACRS SUBCOMMITTEE ON HUMAN FACTORS AND RELIABILITY & PROBABILISTIC RISK ASSESSMENT, JANUARY 25, 2006 - ROCKVILLE, MARYLAND

A working copy of the minutes for the subject meeting is attached for your review. Please review and comment on them. If you are satisfied with these minutes please sign, date, and return the attached certification letter.

Attachment: Minutes (DRAFT)

cc: M. Bonaca
G. Apostolakis
R. Denning
T. Kress
D. Powers
G. Wallis
W. Shack
M. Snodderly
A. Thadani
J. Larkins

From: John Flack
To: Mario Bonaca
Date: 3/7/06 3:23PM
Subject: For Your Review - Meeting Minutes on Safety Culture

Mario: For your review, comment and approval, attached is the working copy of the meeting minutes from the Joint ACRS Subcommittee on Human Factors and Reliability & Probabilistic Risk Assessment, held January 25, 2006.

Thanks,

John

CC: Bill Shack; Dana Powers; George Apostolakis; Graham Wallis; John Larkins; Michael Snodderly; Rich Denning; Tom Kress

CERTIFIED
By
Mario V. Bonaca: 03/10/2006
Issued: 03/07/2006

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MEETING OF THE JOINT ACRS SUBCOMMITTEE ON HUMAN FACTORS AND RELIABILITY & PROBABILISTIC RISK ASSESSMENT, JANUARY 25, 2006 - ROCKVILLE, MARYLAND

INTRODUCTION

The Joint ACRS Subcommittee on Human Factors and Reliability & Probabilistic Risk Assessment held a meeting on January 25, 2006, in Room T-2B1, 11545 Rockville Pike, Rockville, MD. The purpose of this meeting was to review the NRC staff's proposed approach to enhance the Reactor Oversight Process (ROP) to more fully address safety culture. Implementation of the approach is scheduled for March, 2006.

The meeting was open to public attendance. John Flack was the Designated Federal Official for this meeting. There were no written comments or requests for time to make oral statements. The meeting was convened by the Subcommittee Chairman at 8:32 a.m. on January 25, 2006 and adjourned at 12:42 p.m. the same day.

ATTENDEES

ACRS Members

M. Bonaca, Acting Chairman
W. Shack, Member
G. Wallis, Member
R. Denning, Member
D. Powers, Member
T. Kress, Member
J. Flack, Designated Federal Official

Principal NRC Speakers

M. Johnson, NRR
G. Cobey, RI
J. Persensky, RES
A. Koch, OE

A complete list of attendees is in the ACRS Office File and will be made available upon request. The presentation slides and handouts used during the meeting are attached to the office copy of these minutes.

OPENING REMARKS BY ACTING CHAIRMAN BONACA

Dr. Mario Bonaca, Acting Chairman of the ACRS Joint Subcommittee on Human Performance and Reliability & Probabilistic Risk Assessment convened the meeting at 8:32 a.m. Dr. Bonaca

stated that the purpose of this meeting was to examine current status of NRC's safety management/culture initiatives, and associated approaches to address safety culture in the regulatory oversight process. Additionally, the Subcommittee will gather information, analyze relevant issues and facts, and formulate proposed positions and actions, as appropriate, for deliberation by the full Committee. The rules for participation in the meeting were announced as part of the notice of the meeting published in the Federal Register dated December 23, 2005 Dr. Bonaca acknowledged that no written comments or requests for time to make oral statements had been received.

Dr. Bonaca noted that the NRC staff has been meeting with stakeholders, the most recent meeting was held on January 18, 2006. In light of these meetings, and staff briefing to the Full Committee on December 9, 2005, the specific objectives of the meeting were to be briefed on:

(1) Description of safety culture components and how they would be used in a regulatory process,
(2) Status of NRC safety culture initiative and proposed approach,
(3) International experience related to safety culture.

Following the opening remarks, Dr. Bonaca called upon Mr. Michael Johnson, Office of Nuclear Reactor Regulations to begin the presentation.

DISCUSSION OF AGENDA ITEMS

Introductory Remarks

Mr. Johnson stated that the objective of the meeting was to brief the Subcommittee on safety culture, specifically the components that are the centerpiece of NRC's approach. He noted that there is great similarity between NRC and industries approach, and what the international community believes to be important. Mr. Johnson said that the staff presentation would also address how the staff used international experience to focus their activities on ways to move forward. Mr. Johnson then requested Gene Cobey to begin his presentation.

Status of Safety Culture Initiative Including Proposed Approach

Mr. Cobey opened his presentation by stating that the Commission directed the staff (in SRM SECY 04-0111) to do basically four activities: (1) enhance the reactors oversight process treatment of crosscutting issues to more fully address safety culture, (2) determine the need and develop a process to conduct a safety culture evaluation for those plants in a degraded cornerstone, (3) ensure that inspectors and managers are trained on safety culture, (4) involve stakeholders in the process. Mr. Cobey described the process they used to address the Commission's direction, which included forming a steering committee (headed by Mr. Michael Johnson) and a working group. He noted that after some progress the Commission (orally in early November) directed the staff to take a fresh start. Several stakeholder meetings followed to discuss the definition of safety culture, definition of safety culture components, potential ROP enhancements, and a proposed approach (Option G). Except for adjustments of the crosscutting issues, Mr. Cobey stated that at the December 15, 2006 public meeting stakeholders agreed on all aspects of their proposed approach including the final definitions of safety culture components, and use of ISAG-4 definition as NRC's definition of safety culture.

Mr. Cobey described the January 18, 2006 meeting they held with stakeholders. That meeting included three parts: (1) safety culture components and definitions, (2) demonstration of the treatment of inspection findings within the crosscutting areas, (3) results from NRC's review of inspection findings that had already occurred. He described how they chose two plants to demonstrate the new process, one with a crosscutting issue in problem identification and resolution, the other an issues in the area of human performance. He noted that there was consistency in the assessment with the earlier program, and that the proposed approach provided greater clarity, predictability, and consistency about what constitutes a crosscutting issue. He presented an overview of the planned approach that had been previously referred to as Option G, and compare the approach to the current treatment of crosscutting issues.

Mr. Cobey stated that when a recurring substantive crosscutting issue exists, the NRC may request that the licensee take some action which could include having them respond at their next annual public meeting; provide a written response; or meet with the NRC to discuss the issue. In cases where a substantive crosscutting issue exists for a third cycle, the NRC would request that the licensee perform a self-assessment or have an independent assessment of their safety culture performed.

If a plant is in the licensee response column, Mr. Cobey explained that the proposed changes would have little effect. For plants in the regulatory response column of the action matrix, the NRC would expect that the licensee would do an evaluation of the performance deficiency and implement corrective action. A supplemental inspection procedure would have inspectors verify that the licensee evaluation considered the safety culture components, and if one was found to be not appropriately address, the staff would keep the finding open.

For plants in the degraded cornerstone column of the action matrix, Mr. Cobey explained that the enhanced inspection procedure (IP 95002) would allow inspectors to independently determine whether safety culture components were contributors to the performance problems. There would be a regulatory action that would allow NRC to request an independent assessment of safety culture in the event that licensees did not recognize that safety culture components were the driver of the performance problems.

Mr. Cobey stated that once a plant enters into the multiple repetitive degraded cornerstone column, NRC would expect that an independent assessment of its safety culture be performed. This would involve a broad look under supplemental inspection (IP) 95003. Mr. Cobey indicted that there is about one IP 95003 inspection per year, and the cost of the is picked up by the licensee.

Mr. Cobey summarized his presentation by noting that the proposed approach is within the framework of the ROP; the safety culture components reflect what is important to safety culture; the changes improve predictability and consistency in the identification of crosscutting aspects and common casual themes of a finding, and provides close alignment between substantive crosscutting issues and what is important to safety culture. Continuing, Mr. Cobey stated that the proposed approach addressed the three objectives: (1) the revised IP 71152 will provide better opportunities for the NRC to diagnose safety culture weaknesses and take action before it results in a degraded cornerstone (2) the enhanced MC 0305 and IP 95002 will provide a structured process to determine the need to evaluate a licensee's safety culture, (3) the enhanced IP 95003 will provide a systematic safety culture evaluation process and a tool to review a licensee's safety culture. Mr Cobey anticipated that the procedures would be revised

and reviewed by the Regions in March, and they would exit the process in mid April. He expected training would be multi-phase, and involve direct interaction in the inspector counterpart meeting in May 2006. Initial implementation of the revised ROP is expected to become effective July 1, 2006.

Description of Safety Culture Components

Ms. Kock opened her presentation by stating that she would discuss the background of the safety culture components, how they were developed and compared to international and domestic attributes, why they are written in their present form, and resolution of comments that had been received. She indicated that they had to use some judgement so as to not include concepts that were outside their purview (e.g., leadership, trust), to be consistent with Commission direction. Ms. Kock stated that it was important not to include information such as individual beliefs or attitudes, but rather the outcomes of those beliefs and attitudes. And also not to include information unless the type of information was applicable to all licensees.

Ms Kock presented IAEA safety culture characteristics, and INPO's components and principles of safety culture. By comparing these to NRC's proposed aspects for cross-cutting areas, she indicated that NRC's components were covered by INPO and IAEA at the performance level. She gave examples of consistency of the resources component with INPO's principle called "Everyone is Personally Responsible for Nuclear Safety," and with IAEA's characteristic "Safety is a Clearly Recognized Value." She compared NRC's component "Willingness to Raise Concerns" with INPO's principle on "Trust," and IAEA's characteristic of "Safety is Learning Driven." She compare NRC's component "Self and Independent Assessment," with INPO's principle "Nuclear Safety Undergoes Constant Examination," and also IAEA's characteristic "Safety is Learning Driven." Information on the comparison is expected to be included in MC 0305, and associated training material. Ms. Kock also pointed out areas that were included in INPO's principles but outside NRC purview. She then characterized the comments received from stakeholders as mostly amplifying the language or refining the language, but not introducing new concepts. She noted that some comments did suggest including management involvement or management actions, but these were not included because they were outside NRC's purview.

Ms. Kock summarized her presentation by stating that she had described how the components were developed, how they were refined based on comparison to other groups that looked at safety culture, and how comments were resolved.

A number of questions and comments were raised by Dr. Bonaca and Dr. Powers on why the staff chose 'Willingness to Raise Concern," in assessing the cross cutting issue Safety Conscious Work Environment. The comments focused on the process used by the NRC to identify the root cause; specifically that the words seem to reflect a process that focused on the employee not raising a concern, rather than the environment that caused an employee to not raise a concern. Dr. Bonaca recommended using words, like "encouraging the employee to raise a concern." Mr. Johnson indicated that they understood the comment, and that they would look to make sure the language (Willingness to Raise Concerns) is in parallel with the other components (e.g., Preventing and Detecting Retaliation). Dr. Bonaca indicated that the staff had stated they would consider and try to reflect members comments in their description, and the Committee will have another opportunity to review it again when it comes back to the Full Committee.

International Experience

Mr. Persensky led this part of the meeting and focused on how the staff considered international experience in their safety culture initiative. He stated that IAEA produced the most visible guidance and it included how to do a self assessment, how to evaluate a self assessment, and to do a safety culture assessment. ILK, an advisory committee to German States was also considered. Mr. Persensky stated that the Fins and Hungarians both have safety culture regulations. Dr. Powers pointed out that the Eastern Europeans are most aggressive in this area since it does not require a lot of investment capital.

Mr. Persensky stated that IAEA preferred to train members on how to write surveys, how to give interviews, and how to check them, but IAEA also has an Operational Safety Review Team and team guidelines for doing safety culture assessments. The staff used the guidance extensively in their developmental activities. The other major organizations that were considered included CNRA and CSNI. Mr. Persensky stated that the 'Murley Report" [Role of Nuclear Regulator in Promoting and Evaluating Safety Cuture," was most relevant to the regulator. Emphasis is on periodic assessments, both for safety culture and organizational factors. Under CSNI, most of the work was done by Special Expert Group on Human Organizational Factors (SEGHOF). Mr. Persensky stated that he was a member of SEGHOF, and they had held several workshops, and will be soon issuing a report on safety management. He noted that this information had been put into the staff's basis document.

Mr. Persensky next focused on specific countries. He stated that Finland has a brief (100 words) safety culture regulation with two components; (1) management establishes a framework for safety, and (2) personnel implement the safe working methods and attitudes. He noted that the Fins do inspections every two years with a tool that has many of the elements or components described earlier. He noted Spain is also active and is implementing an ROP process and inspection of crosscutting issues,. Because they had found plants with safety culture issues, the Spanish Parliament required all plants to have a safety culture program plan that includes self assessment and independent assessments. The Canadians did evaluations at nine plants and found issues at plants not known to have problems. Mr Persensky stated that from informal discussions, he believes all of Canada's plants will have to do periodic assessments similar to the one done by the regulator. The regulator would then be expected to review the assessments. He also indicated that the Chinese are beginning to do assessments, and the Japanese are becoming interested in safety culture because of the Tokamora event.

Committee Discussion

Dr. Bonaca opened the meeting up for discussion with focus on two items (1) when to bring the material to the Full Committee, and (2) views on the days presentation. Mr. Johnson stated that April would work best for their plans to move forward, and would work with Dr. Flack to get the product to the Committee. With respect to members views on the presentation, Dr. Shack indicated that he was fairly impressed, and that the changes the staff proposed could get the NRC engaged a little sooner before a significant finding occurs. Dr. Power stated that he was not persuaded, that it could result in piling on following a hardware failure, and indicated that he was not enthusiastic about experimenting with licensees as a vehicle for training inspectors. He did believe there was room for helping inspectors understand when there is a safety culture issue. Dr. Denning aligned more with Dr. Shack. He also believed the staff's approach could be

a bit more proactive, but the approach provides a tool without being overly intrusive. He believed that the work is ready to go to the Full Committee. Dr. Armijo believed the approach is excellent, but also shared some of Dr. Power's concern that it could be abused. Dr. Kress generally like the staff's approach, particularly the performance measurable items, the fact that it is minimally intrusive in the beginning and then scales up, and it's responsive to the Commission's SRM. He would support a recommendation that would take a retroactive look following an incident, to see if it was associated with safety culture problems. Dr. Kress stated that he didn't know how licensees could have employees raise concerns anonymously , or how to evaluate the impact of organizational changes. He also believed the work was ready to go to the Full Committee. Dr. Bonaca stated that he believed the approach enabled the inspectors to better understand the environment, and helped to focus their questions. He commented that he was not sure how to evaluate its effectiveness. He agreed with the staff that it would be best to have a Full Committee meeting in April.

Dr. Denning asked about NEI's response to the initiative. Mr. Harris rose from the audience and stated that he was from NEI, and that NEI's biggest concern related to how the staff approach would really be used. He stated that there is a difference between using the assessment tool on licensee that had problems, as opposed to using it as an intrusive inspection tool. He stated that NEI would continue to work with the staff on the language, and that the last presentation went a long way in eliminating or alleviating a lot of their concerns.

Dr Bonaca ended the session by thanking the staff for an excellent presentation.

General Comments and Observations From the Subcommittee Members

- Dr. Power asked what alternative definitions of safety culture were considered. Dr. Persensky stated that there were several alternatives considered, including INPO's definition, and the 1989 Policy Statement on Conduct of Operations. Dr. Persensky stated that the differences between INPO's definition and the one they chose (INSAG-4) would not result in a big impact.

- Dr. Bonaca questioned how the resource component was forced under each crosscutting issues. For example, why the "resources" component was placed under human performance and not under problem identification and resolution. Mr. Cobey stated that they had to structure the elements so that if there was a performance deficiency, it would not be entered into multiple places. Mr. Johnson indicted that it did not matter much where it is listed, as long as the process clearly communicates the issues to licensees so they can take appropriate action. Ms. Kock stated that under PI & R they were looking at the big picture on whether the licensee was identifying, evaluating, and taking action on problems, and didn't believe resources would fit under that category.

- Dr. Wallis commented that its management attitude, management responsiveness, and management encouraging people to raise concerns that should be entered under Safety Conscious Work Environment, rather than focusing on the worker's willingness to raise concern. Ms. Kock agreed, and stated that the description "willingness to raise concerns" is very similar to Dr. Wallis' comment.

- Dr. Bonaca asked how repeat events would be addressed, or how the process would determined whether an organization is a learning organization. Mr. Cobey stated that the philosophy of the ROP is that if the deficiency is not more than minor, it would not enter into the assessment process. He said, however, that if there were more significant underlying problems, he would expect performance deficiencies would rise up above minor and become "green" findings. The "green" threshold is not so high that one would expect to see significant performance deficiencies over extended periods of time.

- Dr. Wallis remarked that INPO had a good feature, that they would talk about good safety culture and not just indicate that they observed a bad safety culture in some extreme case. Mr. Cobey stated that the staff is consistent with the Commission's intent not to evaluate safety culture at all plants, and that it was appropriate for INPO to do those types of evaluations.

- Dr. Wallis asked how management is going to assess itself if its policy suppresses safety culture. Mr. Cobey indicated that if the agency determined that the licensee performed an inadequate safety culture examination, the inspection staff would have to deal with it.

- Dr. Powers asked what would be the NRC's response if a safety culture assessment had been requested and the licensee handed over what INPO did. Mr. Cobey indicated that the staff would come in and do their own evaluation. He also stated that the staff had looked at the INPO process and believed it was reasonably sound. Dr. Denning followed by asking whether the staff could take any regulatory action and Mr. Cobey stated that if the staff determined that a self-assessment of the safety culture is not sound, they would expect the licensee to address and correct it just like any other performance issue.

- Dr. Bonaca asked about inspections during outages, and whether the staff would be looking at work that should be done but is not being done, as for example, the work that had been put off at Davis Besse. Mr. Cobey stated the staff would now review every input into a licensee's corrective action program, and if there was a performance deficiency identified, they would now look for decision-making as a causal factor.

- Dr. Kress asked whether "request" meant licensee had to do it. Mr. Cobey explained that licensees are not required to do what is requested, but if they didn't, the NRC would do it themselves within the context of implementing IP 95003 supplemental inspection.

- Dr. Kress asked if the changes would involve formal rulemaking, and Mr. Cobey stated it would not. He believed the changes are consistent with the Commission's direction articulated in SRM 2004-0111, and SRM 2005-0187.

- Dr. Wallis asked whether the approach taken would address the Davis-Besse type of situation or is it just a little step forward. Mr. Cobey stated that it was an incremental step forward, and they would watch these changes for a cycle and a half and then look at the lessons learned.

- Dr. Thadani asked if NRR had looked at other significant events outside the NRC, (e.g., NASA and PAKS fuel failure in Hungary). Mr. Persensky indicated that they did not do a formal review, but consider other insights in their development of the elements of safety culture. Mr. Cobey stated that they looked at Salem and Hope Creek, and how the changes would have impacted their work, and believed it would have place them at the right point. Ms. Ghosh stated that she visited PAKS soon after the incident there, and the safety culture components capture the issues.

- Dr. Denning asked whether the staff was throwing away data because it had not lead to a safety problem, and Mr. Cobet acknowledged that in setting thresholds such data may not get incorporated. Mr. Johnson indicated that it was important not to create false positives and defer licensee's attention from things that they should be worried about.

- Dr. Flack asked whether the process would pickup on licensees putting things off as was the case at Davis-Besse and Mr. Cobey stated that he thought it could but would be difficult to show for Davis-Besse because of lack of information. Mr. Boger stated that the resident staff would look at deferred modifications as part of the normal baseline inspection program.

- Dr. Bonaca asked whether the "decision-making" component went beyond the individual worker to the organization and Ms. Kock said it did, and that the component addresses conservative decision-making by the organization.

- Dr. Denning asked if not doing surveys "hand-stringed" the evaluation, and Ms. Kock stated that one could get more on the underlying beliefs and attitudes if one was to use a survey, but that didn't hinder them from focusing on outcomes rather than individual beliefs.

- Dr. Bonaca commented that surveys are like windows into management and, therefore, it would be difficult to do. Mr. Cobey noted that if performance dictated, IP 9003 will be used to assess licensee' safety culture, and associated surveys would be used in the assessment process.

- Dr. Bonaca asked at what point would the 4 additional safety culture components (total 13) be used and Mr. Cobey indicated that they would be used in a graded way when a plant entered columns 2, 3, or 4 of the action matrix. Dr. Bonaca asked if industry agreed with the approach and Mr. Cobey stated that they were fairly receptive, and that there hasn't been much disagreement about how a plant would be treated once it began to move to the right in the action matrix.

- Dr. Bonaca asked whether the staff first started with the crosscutting issues and then identified the sub-items, or first identified the 13 attributes and then fit them under the crosscutting issues. Ms. Kock explained that they started by first compiling all the safety culture information, and then identified what the NRC could use. She stated that they developed the components then placed them under the crosscutting issues. Dr. Bonaca indicated that it was like putting the umbrella below instead of above.

- Dr. Powers asked about rewording "Willing to Raise Concerns," to something like "Management Fosters its Employees to Raise Safety Questions. Dr. Bonaca agreed

that the wording focuses on the employees not willing to raise a concern, rather than the environment that discourages the employee from raising a concern. He suggested the words be changed to 'Encouraging Employees to Raise Concerns." Dr. Powers followed by asking if there was an historical example of an issue associated with "willingness to raise concern." Ms. Kock stated there was just one (Salem/Hope Creek). Because the current system does not capture those issues, there is no way of going back to get more examples.

- Dr. Powers continued to ask what new finding would come under "willingness to raise concerns." Mr. Cobey responded by stating that the staff would engage the licensee at the level commensurate with the risk significance, review the root cause analysis, and that if the staff believed that management created the environment that caused the individual to be reluctant to raise the issue, the licensee would be expected to correct the crosscutting issue (safety conscious work environment). To do this for Salem/Hope Creek, the staff had to deviate from the ROP.

- Dr. Powers asked how does one know if its management or the worker that caused the failure. Ms. Kock responded that they would expect it would come out through the questioning process.

- Dr. Power asked whether one could do a "blind experiment" and determine whether there is a good or bad safety culture without a manifest finding. Mr. Persensky stated it would be difficult, but the Canadians may have come close by doing evaluations at nine plants that were not identified as problem plants. Not all the details are known since the work is not all publicly available.

- Dr. Powers commented that he was suspicions of independent assessments and that they will give you the answer one is buying. Mr. Persensky stated that it shouldn't be one shot, its should be taken over time to see the trend, and also be compared to other plants.

- Dr. Power asked whether there would be a problem in adopting European methods in the United Sates. Mr. Persensky stated that the European methods were actually developed in the United Sates, and they were adapted rather than adopted by the Europeans to address differences. He didn't think there was much difference between the methods.

SUBCOMMITTEE DECISIONS AND ACTIONS

The Full Committee will review and comment upon the revise approach to treat safety culture in the ROP.

BACKGROUND MATERIALS PROVIDED TO THE SUBCOMMITTEE PRIOR TO THIS MEETING

1. Subcommittee status report, including agenda.

2. Response to NRC on Safety Culture Components and ROP Revisions, January 6, 2006

3. Pilot Issues, SAFETY CULTURE COMPONENTS

4. Viewgraphs dated January 18, 2006, Safety Culture Initiative Approach Summary, Eugene Cobey, Chief Reg I

5. Demonstration of Treatment of Findings in Cross- Cutting Areas

6. Viewgraphs dated January 18, 2006: Demonstration of Treatment of Findings within the Cross-Cutting Areas, Eugene Cobey, Chief Reactor Projects Branch 3, Region I

7. Viewgraphs dated January 18, 2006: Industry Safety Culture Presentation

8. NEI Draft proposal dated 12/12/2005: SAFETY CULTURE OVERSIGHT

9. STAFF REQUIREMENTS - SECY-05-0187 - STATUS OFSAFETY CULTURE INITIATIVES AND SCHEDULE FOR NEAR-TERM DELIVERABLES, dated December 21, 2005

Note: Additional details of this meeting can be obtained from a transcript of this meeting available for downloading or viewing on the Internet at "http://www.nrc.gov/ACRSACNW' or can be purchased from Neal R. Gross and Co., Inc., (Court Reporters and Transcribers) 1323 Rhode Island Avenue, NW., Washington, DC 20005 (202) 234-4433.

II. EA Summary

The purpose of the proposed action is to authorize the release of the licensee's 12709 Twinbrook Parkway, Rockville, Maryland facility for unrestricted use. FDA/CDRH was authorized by NRC from 1965 to use radioactive materials for research and development purposes at the site. On August 23, 2005, FDA/CDRH requested that NRC release the facility for unrestricted use. FDA/CDRH has conducted surveys of the facility and provided information to the NRC to demonstrate that the site meets the license termination criteria in Subpart E of 10 CFR Part 20 for unrestricted use.

The NRC staff has prepared an EA in support of the license amendment. The facility was remediated and surveyed prior to the licensee requesting the license amendment. The NRC staff has reviewed the information and final status survey submitted by FDA/CDRH. Based on its review, the staff has determined that there are no additional remediation activities necessary to complete the proposed action. Therefore, the staff considered the impact of the residual radioactivity at the facility and concluded that since the residual radioactivity meets the requirements in Subpart E of 10 CFR part 20, a Finding of No Significant Impact is appropriate.

III. Finding of No Significant Impact

The staff has prepared the EA (summarized above) in support of the license amendment to terminate the license and release the facility for unrestricted use. The NRC staff has evaluated FDA/CDRH's request and the results of the surveys and has concluded that the completed action complies with the criteria in Subpart E of 10 CFR Part 20. The staff has found that the radiological environmental impacts from the action are bounded by the impacts evaluated by NUREG–1496, Volumes 1–3, "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Facilities" (ML042310492, ML042320379, and ML042330385). Additionally, no non-radiological or cumulative impacts were identified. On the basis of the EA, the NRC has concluded that there are no significant environmental impacts from the proposed action, and has determined not to prepare an environmental impact statement for the proposed action.

IV. Further Information

Documents related to this action, including the application for the license amendment and supporting documentation, are available electronically at the NRC's Electronic Reading Room at *http://www.nrc.gov/reading-rm/adams.html*. From this site, you can access the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The ADAMS accession numbers for the documents related to this Notice are: Environmental Assessment [ML053480176] and Final Status Survey Report, Food and Drug Administration, Center for Devices and Radiological Health, 12709 Twinbrook Parkway, Rockville, Maryland, August 22, 2005, Final Report [ML052380179]. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at (800) 397–4209 or (301) 415–4737, or by e-mail to *pdr@nrc.gov*.

Documents related to operations conducted under this license not specifically referenced in this Notice may not be electronically available and/or may not be publicly available. Persons who have an interest in reviewing these documents should submit a request to NRC under the Freedom of Information Act (FOIA). Instructions for submitting a FOIA request can be found on the NRC's Web site at *http://www.nrc.gov/reading-rm/foia/foia-privacy.html*.

Dated at King of Prussia, Pennsylvania this 14th day of December, 2005.

For the Nuclear Regulatory Commission

John D. Kinneman,

Chief Materials Security & Industrial Branch, Division of Nuclear Materials Safety. Region I.

[FR Doc. E5–7792 Filed 12–22–05; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards; Subcommittee Meeting on Thermal-Hydraulic Phenomena; Notice of Meeting

The ACRS Subcommittee on Thermal-Hydraulic Phenomena will hold a meeting on January 19, 2006, Room T–2B3, 11545 Rockville Pike, Rockville, Maryland.

The entire meeting will be open to public attendance, with the exception of portions that may be closed to discuss General Electric (GE) proprietary information pursuant to 5 U.S.C. 552b(c)(4).

The agenda for the subject meeting shall be as follows:

Thursday, January 19, 2006—8:30 a.m. Until the Conclusion of Business

The Subcommittee will review the analytical methods to be used to evaluate stability scenarios for the ESBWR and will hear the NRC staff's plan to revise Regulatory Guide 1.82, "Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident." The Subcommittee will hear presentations by and hold discussions with representatives of the NRC staff, their contractors, GE and other interested persons regarding this matter. The Subcommittee will gather information, analyze relevant issues and facts, and formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Members of the public desiring to provide oral statements and/or written comments should notify the Designated Federal Official, Mr. Ralph Caruso (Telephone: 301–415–8065) five days prior to the meeting, if possible, so that appropriate arrangements can be made. Electronic recordings will be permitted only during those portions of the meeting that are open to the public.

Further information regarding this meeting can be obtained by contacting the Designated Federal Official between 7:30 a.m. and 4:15 p.m. (ET). Persons planning to attend this meeting are urged to contact the above named individual at least two working days prior to the meeting to be advised of any potential changes to the agenda.

Dated: December 15, 2005.

Michael L. Scott,

Branch Chief, ACRS/ACNW.

[FR Doc. 05–24429 Filed 12–22–05; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards Joint Meeting of the Subcommittees on Human Factors and on Reliability and Probability Risk Assessment; Notice of Meeting

The ACRS Subcommittees on Human Factors and on Reliability and Probability Risk Assessment will hold a joint meeting on January 25, 2006, Room T–2B3, 11545 Rockville Pike, Rockville, Maryland.

The entire meeting will be open to public attendance.

The agenda for the subject meeting shall be as follows:

Wednesday, January 25, 2006—8:30 a.m. Until 12:30 p.m.

The Subcommittees will examine current status of NRC's safety management/culture initiatives, and associated approaches to address safety culture in the regulatory oversight process. The Subcommittee will hear presentations by and hold discussions with representatives of the NRC staff, and other interested persons regarding this matter. The Subcommittees will gather information, analyze relevant issues and facts, and formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Members of the public desiring to provide oral statements and/or written comments should notify the Designated Federal Official, Dr. John H. Flack (telephone 301/415–0426), five days prior to the meeting, if possible, so that appropriate arrangements can be made. Electronic recordings will be permitted.

Further information regarding this meeting can be obtained by contacting the Designated Federal Official between 7:30 a.m. and 4:15 p.m. (ET). Persons planning to attend this meeting are urged to contact the above named individual at least two working days prior to the meeting to be advised of any potential changes to the agenda.

Dated: December 15, 2005.

Michael L. Scott,

Branch Chief, ACRS/ACNW.

[FR Doc. E5–7781 Filed 12–22–05; 8:45 am]

BILLING CODE 7590–01–P

OFFICE OF MANAGEMENT AND BUDGET

Proposed Bulletin for Good Guidance Practices

AGENCY: Office of Management and Budget.

ACTION: Notice of proposed guidelines and request for comments.

SUMMARY: The Office of Management and Budget (OMB) is extending the comment period regarding its draft Bulletin for Good Guidance Practices from December 23, 2005, to January 9, 2006. This Bulletin is intended to increase the quality and transparency of agency guidance practices and the guidance documents produced through them.

DATES: Written comments regarding OMB's Proposed Bulletin for Good Guidance Practices are due by January 9, 2006.

ADDRESSES: Due to potential delays in OMB's receipt and processing of mail, respondents are strongly encouraged to submit comments electronically to ensure timely receipt. We cannot guarantee that comments mailed will be received before the comment closing date. Electronic comments may be submitted to: *OMB_GGP@omb.eop.gov.* Please put the full body of your comments in the text of the electronic message and as an attachment. Please include your name, title, organization, postal address, telephone number, and e-mail address in the text of the message. Comments also may be submitted via facsimile to (202) 395–7245.

FOR FURTHER INFORMATION CONTACT: Lisa Jones, Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., New Executive Office Building, Room 10201, Washington, DC, 20503. Telephone (202) 395–5897.

SUPPLEMENTARY INFORMATION: OMB is seeking comments on its Proposed Bulletin for Good Guidance Practices by January 9, 2006. The draft Bulletin for Good Guidance Practices is posted on OMB's Web site, *http://www.whitehouse.gov/omb/inforeg/regpol.html.* This draft Bulletin provides a definition of guidance; describes the legal effect of guidance documents; establishes practices for developing guidance documents and receiving public input; and establishes ways for making guidance documents available to the public.

Dated: December 19, 2005.

Donald R. Arbuckle,

Deputy Administrator, Office of Information and Regulatory Affairs.

[FR Doc. 05–24417 Filed 12–22–05; 8:45 am]

BILLING CODE 3110–01–P

OVERSEAS PRIVATE INVESTMENT CORPORATION

Sunshine Act; January 12, 2006, Public Hearing

TIME AND DATE: 3 p.m. Thursday, January 12, 2006.

PLACE: Offices of the Corporation, Twelfth Floor Board Room, 1100 New York Avenue, NW., Washington, DC.

STATUS: Hearing OPEN to the Public at 3 p.m.

PURPOSE: Public Hearing in conjunction with each meeting of OPIC's Board of Directors, to afford an opportunity for any person to present views regarding the activities of the Corporation.

PROCEDURES: Individuals wishing to address the hearing orally must provide advance notice to OPIC's Corporate Secretary no later than 5 p.m. Friday, January 6, 2006. The notice must include the individual's name, title, organization, address, and telephone number, and a concise summary of the subject matter to be presented.

Oral presentations may not exceed ten (10) minutes. The time for individual presentations may be reduced proportionately, if necessary, to afford all participants who have submitted a timely request to participate an opportunity to be heard.

Participants wishing to submit a written statement for the record must submit a copy of such statement to OPIC's Corporate Secretary no later than 5 pm, Friday, January 6, 2006. Such statements must be typewritten, double-spaced, and may not exceed twenty-five (25) pages.

Upon receipt of the required notice, OPIC will prepare an agenda for the hearing identifying speakers, setting forth the subject on which each participant will speak, and the time allotted for each presentation. The agenda will be available at the hearing.

A written summary of the hearing will be compiled, and such summary will be made available, upon written request to OPIC's Corporate Secretary, at the cost of reproduction.

FOR FURTHER INFORMATION CONTACT: Information on the hearing may be obtained from Connie M. Downs at (202) 336–8438, via facsimile at (202) 218–0136, or via e-mail at *cdown@opic.gov.*

Dated: December 21, 2005.

Connie M. Downs,

OPIC Corporate Secretary.

[FR Doc. 05–24459 Filed 12–21–05; 11:27 am]

BILLING CODE 3210–01–M

OVERSEAS PRIVATE INVESTMENT CORPORATION

Sunshine Act; January 12, 2006, Annual Public Hearing

TIME AND DATE: 2 p.m. Wednesday, January 12, 2006.

PLACE: Offices of the Corporation, Twelfth Floor Board Room, 1100 New York Avenue, NW., Wshington, DC.

STATUS: Hearing open to the public at 2 p.m.

PURPOSE: Annual Public Hearing to afford an opportunity for any person to present views regarding the activities of the Corporation.

PROCEDURES: Individuals wishing to address the hearing orally must provide advance notice to OPIC's Corporate Secretary no later than 5 p.m., Friday, January 6, 2006. The notice must

Advisory Committee on Reactor Safeguards
Joint Human Factors / Reliability & PRA Subcommittee Meeting
Rockville, MD
25 January 2005
Room T-2B3

- Agenda -

Cognizant Staff Engineer: Dr. John H. Flack (301-415-0426, jhf@nrc.gov)

	Topic	Presenter(s)	Time
January 25			
	Opening Remarks and Objectives	M. Bonaca, ACRS	8:30 - 8:45 am
I	Introductory Remarks	M. Johnson, OE	8:45 - 8:50 am
II	Descriptions of Safety Culture Components	A. Koch, OE	8:50 - 10:30 am
	Break		10:30 -10:45 am
III	Status of Safety Culture Initiative including Proposed Approach	G. Cobey, RI	10:45 - 11:!5 am
IV	International Experience	J.Persensky, RES	11:15 - 12:00 pm
V	Committee Discussion		12:00 - 12:30 pm
	Adjourn		12:30pm

Notes:
- Presentation time should not exceed 50% of the total time allocated for a specific item.
- Number of copies of presentation materials to be provided to the ACRS - 35.

NRC Safety Culture Activities

Advisory Committee on Reactor Safeguards
Joint Human Factors/Reliability &
PRA Subcommittee Meeting

January 25, 2006

Introduction

Michael Johnson, Director
Office of Enforcement

January 25, 2006

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Safety Culture Initiative Approach

Eugene Cobey, Chief
Reactor Projects Branch 3, Region I

January 25, 2006

Purpose

To establish a common understanding of the approach for the treatment of safety culture within the Reactor Oversight Process.

4

Background

The Commission provided direction to:

- Enhance the Reactor Oversight Process (ROP) treatment of cross-cutting issues to more fully address safety culture
- Develop a process to determine the need for conducting a safety culture evaluation for plants with a degraded cornerstone and develop a safety culture evaluation process
- Ensure inspectors are properly trained in safety culture
- Involve stakeholders in making changes to the ROP

5

Background

- Since the Commission's direction to take a "Fresh Start," the staff has conducted several public meetings
  - November 29th and 30th
  - December 8th
  - December 15th
- NRC staff and external stakeholders
  - Discussed the definition of safety culture and what is important about safety culture (components)
  - Discussed the definition of the safety culture components
  - Identified potential ROP enhancements
  - Developed a proposed approach (Option G)

6

Background

- By the conclusion of the December 15th public meeting, the staff and external stakeholders had agreed on all aspects of proposed approach except:
  - Final definitions of the safety culture components
  - Adjustment of the cross-cutting issues to more closely align with what is important to safety culture
- NRC staff requested comment from external stakeholders in advance of the January 18th public meeting
  - January 9th e-mail from NEI

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January 18 Public Meeting

Purpose

To discuss the safety culture component definitions and the treatment of inspection findings within the cross-cutting areas under the proposed change to the ROP

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January 18 Public Meeting

Meeting consisted of:

- Discussion of the safety culture component definitions
- Demonstration of the treatment of inspection findings within the cross-cutting areas
- Presentation on the results of the staff's review of the proposed change on the treatment of inspection findings within the cross-cutting areas

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January 18 Public Meeting

Results:

- Improved understanding of the proposed change to the ROP
- Agreement amongst stakeholders, which included utility representatives, David Lochbaum, Eric Fries and Billie Garde that the planned adjustments to the cross cutting areas are desirable, or at least acceptable
- Received a few comments related to improvements in the definitions of the safety culture components

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NRC Staff's Decision

Implement the proposed approach for the treatment of safety culture within the Reactor Oversight Process

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Safety Culture Initiative Approach

- Information Sources
  - Plant status activities unchanged
  - Baseline inspection program largely unchanged; enhance IP 71152, "Identification and Resolution of Problems"
  - Enhance special inspection procedures (e.g., event follow-up)
  - NRC inspection and investigation of allegations unchanged
  - Inspectors identify cross-cutting aspects of findings remains unchanged
- Documentation
  - Docketed correspondence unchanged

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Safety Culture Initiative Approach

- Assessment
  - ➢ Framework of MC 0305, "Operating Reactor Assessment Program," remains largely unchanged
  - ➢ Adjust the cross-cutting issues to more closely align with what is important to safety culture
  - ➢ Include outputs from the allegation and traditional enforcement processes as inputs into the assessment process

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Current Treatment of Cross-Cutting Issues

PROBLEM IDENTIFICATION & RESOLUTION	HUMAN PERFORMANCE	SAFETY CONSCIOUS WORK ENVIRONMENT
• Identification • Evaluation • Corrective Action	• Personnel • Resources • Organization	"An environment in which employees feel free to raise safety concerns ... without fear of retaliation."
More than 3 findings with this aspect AND The causal factors have a common theme. AND The NRC has a concern with scope of efforts or progress in addressing this area's performance deficiency.	More than 3 findings with this aspect AND The causal factors have a common theme. AND The NRC has a concern with scope of efforts or progress in addressing this area's performance deficiency.	The agency has previously engaged the licensee via a meeting or docketed correspondence regarding a potential or actual SCWE concern or issue.

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Proposed Treatment of Cross-Cutting Issues

PROBLEM IDENTIFICATION & RESOLUTION	HUMAN PERFORMANCE	SAFETY CONSCIOUS WORK ENVIRONMENT
• Corrective Action Program • Operating Experience • Self and Independent Assessments	• Decision Making • Resources • Work Control • Work Practices	• Preventing and Detecting Retaliation • Willingness to Raise Concerns
More than 3 findings with this aspect; AND The causal factors have a common theme; AND The NRC has a concern with scope of efforts or progress in addressing this area's performance deficiency.	More than 3 findings with this aspect; AND The causal factors have a common theme; AND The NRC has a concern with scope of efforts or progress in addressing this area's performance deficiency.	One or more findings with this aspect, the licensee has received a chilling effect letter, OR the licensee has received a SL I, II, or III enforcement action involving discrimination; AND The associated impact on safety conscious work environment was not isolated; AND The NRC has a concern with scope of efforts or progress in addressing this area's performance deficiency.

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Safety Culture Initiative Approach

- Recurring substantive cross-cutting issue
  - ➢ Current process – NRC may request:
    - Licensee provide a response at the next annual public meeting;
    - Licensee provide a written response; or
    - A separate meeting with the licensee to discuss the issue.
  - ➢ Proposed revision to MC 0305 - Add an option to allow the NRC to request the licensee have an assessment of safety culture performed in the case when a substantive cross-cutting issue has been identified in three or more consecutive assessment letters

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Licensee Response Column

- Licensee Action (No Change) – Licensee corrective action
- NRC Inspection – Baseline inspection program
  - Enhance Inspection Procedure 71152, "Identification and Resolution of Problems"
- Regulatory Action (No change) - None

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Regulatory Response Column

- Licensee Action (No change) – Licensee root cause evaluation and corrective action with NRC oversight
- NRC Inspection – Baseline and supplemental IP 95001
  - Enhance Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area"
- Regulatory Action (No Change) – Supplemental inspection only

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Regulatory Response Column

Supplemental Inspection Procedure 95001

- Enhance the inspection requirements and inspection guidance to verify that the licensee's root cause, extent of condition, and extent of cause evaluation appropriately considered safety culture components
- Resource Estimate (No Change)
  - Between 16 and 40 man-hours to complete for each White issue.

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Degraded Cornerstone Column

- Licensee Action (No change) – Licensee cumulative root cause evaluation with NRC oversight
- NRC Inspection – Baseline and supplemental Inspection Procedure 95002
  - Enhance Inspection Procedure 95002, "Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area"

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Degraded Cornerstone Column

Supplemental Inspection Procedure 95002

- Enhance the inspection requirements and inspection guidance to support NRC inspectors independently determining if the components of safety culture caused or contributed to the risk significant performance issues
- Resource Estimate
  - Currently between 40 and 240 man-hours to complete
  - Some increase in average level of effort expected

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Degraded Cornerstone Column

- Regulatory Action (Current)
  - Supplemental inspection only
- Regulatory Action (Proposed Addition)
  - Add an option to allow the NRC to request the licensee have an independent assessment of safety culture performed in the event that the NRC identified, and the licensee did not recognize, that one or more components of safety culture caused or contributed to the risk significant performance issues

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Multiple/Repetitive Degraded Cornerstone Column

- Licensee Action (Current) – Licensee performance improvement plan with NRC oversight
- Licensee Action (Proposed Addition) – Licensee has an independent assessment of safety culture performed
- NRC Inspection – Baseline and supplemental IP 95003
  - ➢ Enhance Inspection Procedure 95003, "Supplemental Inspection for Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or One Red Input"

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Multiple/Repetitive Degraded Cornerstone Column

Supplemental Inspection Procedure 95003

- Enhance the inspection requirements and inspection guidance to support NRC inspectors independently assessing the licensee's safety culture
- Resource Estimate
  - ➢ Currently a three-week onsite inspection effort that is estimated at 1,740 hours of direct inspection effort
  - ➢ Anticipated increase in level of effort between 10 and 20 percent

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Rationale

- Proposed approach is within the framework of the ROP
- Safety culture component definitions reflect what is important to safety culture
- The proposed changes to the treatment of cross-cutting areas facilitate
  - Improved predictability and consistency in the identification of cross-cutting aspects and common casual themes of finding
  - Close alignment between substantive cross-cutting issues and what is important about safety culture

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Rationale

The proposed Safety Culture Initiative Approach satisfies the original objectives.

- To provide better opportunities for the NRC staff to diagnose safety culture weaknesses and take appropriate actions before they result in a degraded cornerstone (enhancement of IP 71152 and treatment of cross cutting issues)
- To provide NRC staff with a structured process to determine the need to specifically evaluate a licensee's safety culture after performance problems have resulted in a degraded cornerstone (enhancement of IP 95002 and MC 0305)
- To provide the NRC staff with a systematic safety culture evaluation process and a tool to review a licensee's safety culture assessment (enhancement of IP 95003)

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Summary and Next Steps

- Completed conceptual development. Staff has shifted focus to:
  - Revising processes and procedures
  - Development of training
- Revise Manual Chapters and Inspection Procedures necessary to implement the approach (End of January)
  - MC 0305, Operating Reactor Assessment Program
  - MC 0612, Power Reactor Inspection Reports
  - IP 71152, Identification and Resolution of Problems
  - Supplemental IPs 95001, 95002, and 95003
  - Event Response IPs 71153, 93800, 93812

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Summary and Next Steps

- Share draft Manual Chapter and inspection procedure revisions with external stakeholders for review and comment (Early February)
- Public meeting to discuss document revisions with stakeholders (~ February 9)
- External stakeholders provide comment (Mid-February)
- Resolve external stakeholder comments (End of February)

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Summary and Next Steps

- Commission TA briefing (Early March)
- Complete document revision process (Mid-April)
- Develop training for inspectors and managers (Present – Mid April)
- Implement training (Mid April – End of June)
- Initial Implementation of Revised ROP (July 1, 2006 through December 31, 2007)

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The NRC Staff's Development of Safety Culture Components

Andrea Kock
Office of Enforcement

January 25, 2006

Purpose

To discuss the:

- Background of NRC's Safety Culture Components
- Comparison of NRC's Safety Culture Components to international and industry attributes
- Development of the NRC's Safety Culture Components
- Resolution of Comments

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Background

- Information on what is important to safety culture was compiled from industry and international sources and based on experience of the working group members
- Our goals are to ensure NRC's components:
  - Include only information that is within NRC's regulatory jurisdiction
  - Eliminate information that could only be obtained through surveys
  - Include only information that is readily available or applicable to most licensees
  - Include only information that is indicative of safety culture
  - Are unambiguous

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IAEA*
Safety Culture Characteristics

- Safety is a clearly recognized value
- Leadership for safety is clear
- Accountability for safety is clear
- Safety is learning-driven
- Safety is integrated into all activities

*From the Safety Culture Assessment Review Team (SCART) Draft Guidelines

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INPO Components:
Principles of Safety Culture

1. Everyone is personally responsible for nuclear safety
2. Leaders demonstrate commitment to safety
3. Trust permeates the organization
4. Decision-making reflects safety first
5. Nuclear technology is recognized as special and unique
6. A questioning attitude is cultivated
7. Organizational learning is embraced
8. Nuclear safety undergoes constant examination

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Proposed Aspects for Cross-Cutting Areas

PROBLEM IDENTIFICATION & RESOLUTION	HUMAN PERFORMANCE	SAFETY CONSCIOUS WORK ENVIRONMENT
• Corrective Action Program	• Decision Making	• Preventing and Detecting Retaliation
• Operating Experience	• Resources	• Willingness to Raise Concerns
• Self and Independent Assessment	• Work Control	
	• Work Practices	

The four other components- safety policies, accountability, organizational change management, and continuous learning environment- will be reviewed under supplemental procedures.

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Comparison of NRC, INPO, IAEA Components and Attributes

Each NRC component is related to a corresponding component or subcomponent from INPO or IAEA; some terminology differs

- Example of consistency in Human Performance
  - NRC's Component, "Resources"
  - INPO's Principle , "Everyone is Personally Responsible for Nuclear Safety" and Nuclear Technology is Recognized as special and Unique"
  - IAEA's Characteristic, "Safety is a Clearly Recognized Value"
- Example of Consistency in Safety Conscious Work Environment
  - NRC's Component "Willingness to Raise Concerns"
  - INPO's Principle of "Trust"
  - IAEA Characteristic of "Safety is Learning Driven"
- Example of Consistency in Problem Identification and Resolution
  - NRC Component "Self and Independent Assessment"
  - INPO's Principle "Nuclear Safety Undergoes Constant Examination"
  - IAEA's Characteristic of "Safety is Learning Driven"
- Example of Inconsistency
  - INPO's attribute of selection and evaluation of managers consider their abilities to contribute to a strong safety culture
  - IAEA's Leadership skills are systematically developed.
  - Example of apparent inconsistency
  - INPO: leadership selection and development processes
  - IAEA: leadership skills are systematically developed
  - NRC: no related component/sub-component

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Development of NRC's Safety Culture Components

- NRC's component titles and definitions were compared to INPO's safety culture attributes and relative Performance Objectives and Criteria.
  - There is considerable overlap in the concepts covered by NRC's components and related INPO Safety Culture attributes and Performance Objectives and Criteria.
  - NRC's components were revised to reflect titles and content that are consistent with INPO's where appropriate.
- Due to the results of our comparison, NRC has decided to develop its own components, using language similar to INPO attributes where possible, rather than use industry's safety culture attributes
- NRC's Components were streamlined
  - Questioning attitude was incorporated into work practices and willingness to raise concerns
- NRC's Components were revised to put them into context of how they would be used under the ROP

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Resolution of Comments on NRC's Safety Culture Components

- Comments were received on the components related to:
  - Different language which amplified the concepts in the components
  - Some suggestions were not incorporated
    - Non-regulatory language or issues outside of NRC's jurisdiction
    - Areas already specifically inspected
    - Concepts already covered under one component
    - Concepts not directly associated with safety culture
    - Language which would not be a potential cross cutting aspect of a finding

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Summary

- Background
- Comparison of NRC's Safety Culture Components to international and industry attributes
- Development of NRC's Safety Culture Components
- Resolution of Comments on NRC's Safety Culture Components

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International Activities Related to Safety Culture

J. Persensky
Office of Nuclear Regulatory Research

January 25, 2006

Purpose

To brief the committee on activities relayed to safety culture in the international community and to describe how the NRC initiative has used this information

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Agenda

- Overview
- Definition of Safety Culture
- Activities at International Organizations
- Activities in Selected Countries

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Overview

- IAEA and other definitions developed
  - Key elements and attributes developed
- Limited empirical research—very little scientific data
- No clear consensus on the role of the regulator
- Regulatory approaches vary
  - Guidance documents and reports
  - Training programs
  - Inspection and evaluation methods, including self assessments

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Definitions of Safety Culture

- What – characteristics and attitudes
  values and behaviors
  attitudes and activities
  assumptions and norms
- Who – organizations and individuals
  leaders and members
  organization's members
- Why – overriding priority is safety
  overall priority of safety
  the way safety is actually dealt with

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Definitions of Safety Culture

That assembly of **characteristics and attitudes** in **organizations and individuals** which establishes that, as an **overriding priority, nuclear plant safety issues** receive the attention warranted by their significance – INSAG-4, 1991

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Activities at International Organizations

- IAEA
- OECD/NEA
  - CNRA
  - CSNI

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IAEA Safety Culture Services

- Safety Culture Seminars
- Safety Culture Self-Assessment Support
- Peer-Review of Safety Culture Self-Assessments
- Management of Safety and Safety Culture Improvement Support
- Operational Safety Culture Assessment Review Team - OSCART
- Safety Culture Enhancement Program Support

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OECD/NEA/CNRA Activities

- Exchange information and experience among regulatory organizations
- Review developments which could affect regulatory requirements
- Review current practices and operating experiences
- "The Role of the Nuclear Regulator in Promoting and Evaluating Safety Culture, 1999

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OECD/NEA/CSNI Activities

CSNI/Special Expert Group on Human and Organizational Factors (SEGHOF)

- Specialist meetings and workshops addressing specific topics
- State-of-the-Art reports and "situation reports"

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Examples of Specific Country Initiatives

- Finland
- Spain
- Canada
- Germany/ILK

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Finland

- Only country with a formal Safety Culture regulation
- Safety Culture
  - "Management establishes framework for safety
  - "Entire staff implements safe working methods and attitudes
- Inspections are performed every two years

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Spain

- CSN
  - "specifies requirements"
  - "collaborates with industry on guides to address the requirements"
- CSN encourages the power plants to put processes in place that are needed to maintain adequate safety management systems
  - "In 2000, all Spanish nuclear power plants were required to develop an assessment and improvement program on human and organizational factors (HOF)
  - "In 2002, all nuclear power plants were requested to develop and implement their own self-assessment procedures and Corrective Action programs
- CSN Inspects to determine the effectiveness of the power plant programs
- The Spanish Parliament recently required all nuclear power plants to provide a safety culture program plan including an evaluation by an outside party

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Canada

- Basis - "operational experience has indicated that management and human performance aspects are among the leading causes of unplanned events at licensed facilities."
- Two basic assessment approaches
  - "Quality Management Approach: (QM)
  - "Organization and Management Review Method: (O&M)
- Results of the O&M method have been used by CNSC to obtain a baseline profile of organizations
- Verified findings from audits and inspections and have provided information to CNSC to help identify areas of improvement.

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Germany/ILK

- ILK Statement – "On the Regulator's Management of the Licensee Self-Assessment of Safety Culture"
  - Definition – INSAG-4
  - Recommended practices
  - Key safety culture items
  - Safety culture indicators
  - Implementation guidance

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Summary

- Discussed in general some activities in the international community relative to safety culture
- Explained how we selected our definition
- Described some specific activities of the IAEA and NEA
- Presented the situation in a sample of countries

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Attachments

- IAEA/INSAG list of documents
- OECD/NEA/CNRA list of documents
- OECD/NEA/CSNI list of documents

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IAEA/INSAG Publications

- INSAG-4, Safety Culture, IAEA, 1991
- INSAG-13, Management of Operational Safety in Nuclear Power Plants, IAEA, 1999
- INSAG-15, Key Practical Issues in Strengthening Safety Culture, IAEA, 2002

- IAEA Safety Reports Series No. 11- Developing Safety Culture in Nuclear Activities - Practical suggestions to assist progress, IAEA, 1998.
- IAEA "The Role of Governments and Regulators in Fostering a Strong Nuclear Safety Culture," Technical Meeting Report, IAEA, 2003
- IAEA-TECDOC-1321, Self-assessment of safety culture in nuclear installations, November 2002
- IAEA-TECDOC-1329. Safety culture in nuclear installations, December 2002
- Safety Requirement on Management Systems (DS338)

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OECD/CNRA Publications

- The Role of the Nuclear Regulator in Promoting and Evaluating Safety Culture. OECD/NEA, 1999

- Regulatory Response strategies for Safety Culture Problems, OECD/ CNRA, 2000

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CSNI/SEGOF Publications

- CSNI Technical Opinion Papers - No. 5 Managing and Regulating Organizational Change in Nuclear Installations (2004)
- Nuclear Regulatory Challenges Related to Human Performance (2004)
- Summary and conclusions of the workshop Scientific Approaches to Safety Management, 8-10 April 2003
- Proceedings of the workshop Regulatory Aspects of the Management of Change, September 10-12, 2001
- State of the Art Report on Systematic Approaches to Safety Management, 2005

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