March 12, 2010

MEMORANDUM TO: Roy P. Zimmerman, Director
Office of Enforcement

FROM: David Solorio, Chief */RA/*
Concerns Resolution Branch
Office of Enforcement

SUBJECT: SUMMARY OF THE FEBRUARY 2-4, 2010, PUBLIC MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND STAKEHOLDERS REGARDING SAFETY CULTURE POLICY STATEMENT, DEFINITION, AND DESCRIPTION/TRAITS (ADAMS ACCESSION NUMBER ML100700065)

On February 2-4, 2010, the United States Nuclear Regulatory Commission (NRC) hosted a public workshop. The purpose of this meeting was to meet with stakeholders to develop more common terminology for safety culture (SC) as outlined in the agenda (Attachment 1) for NRC regulated entities and included: (1) obtaining input regarding a high-level SC definition that could apply to all licensees/certificate holders; (2) obtaining input regarding description/traits of SC that could apply to all licensees/certificate holders; and (3) receiving comments on the draft SC policy statement that was published in the *Federal Register* Notice (FRN) for public comment until March 1, 2010 (75 FR 1656; 74 FR 57525). The SC definition and description and traits developed from the workshop will be used to inform the development of a final SC policy statement. The final SC policy statement will set forth the agency's expectations for fostering a strong SC for NRC regulated activities. The NRC will continue to work with Agreement States to reach alignment on common terminology and the consistent implementation of the SC policy.

Prior to the workshop, the staff reached out to a large number of NRC-regulated entities. The staff encouraged their participation in this workshop in order to benefit from consideration of a spectrum of views in the development of the SC definition, description and traits, as well as encourage these entities to comment on the SC policy statement. The staff's outreach activities included: (1) issuing a FRN (74 FR 66387) announcing the NRC plans for this workshop and soliciting nominations for panel members to participate in discussions to develop a SC definition and traits; and (2) contacting reactors, materials-industrial, materials-medical, material-fuel cycle, new reactor construction, vendors and suppliers and interested members of the public to encourage their participation in the workshop. In addition, the NRC solicited input from an external workshop planning committee, made up of various stakeholders (external to the NRC) that provided feedback to the NRC for conducting this workshop.

CONTACT: Alex Sapountzis, OE
301-415-7822

The structure of this workshop was fairly unique in that the NRC requested external stakeholders represent interest from a large spectrum of licensees/certificate holders regulated by the NRC. The NRC selected sixteen stakeholders (Attachment 3) from nominations it solicited through the FRN (74 FR 66387) to serve as panel members at the SC February 2-4, 2010, workshop. The workshop was structured so that it included several plenary and breakout sessions, where NRC regulated entities were organized into groups by affiliation and interest (Attachment 3). Panel members in the breakout and plenary sessions were given samples to consider when crafting a new SC definitions and traits. The panel members in the breakout and plenary sessions reviewed the samples and proposed new or revised definitions and traits, with frequent input provided by the attendees (i.e., individuals present in the audience, participating by teleconference, Webinar or web stream/teleconference). The breakout sessions reconvened into a plenary group to discuss the results from the breakout sessions and using various methods, the panel members first aligned on a single draft SC definition and then proceeded to discuss and align on SC traits (Attachment 5). In this workshop, the NRC used a technique generally referred to as the "Affinity Diagram" approach to collect and organize the large amounts of information submitted from panelist and attendees at the workshop related to the SC definition and traits through brainstorming. After performing this exercise, in which information is grouped by finding relationships in the content, solutions emerge, or in this case, a decision was reached by the group on a common definition of SC and traits that describe a positive safety focus.

The workshop participants collaborated and defined SC as the following:

"Nuclear safety culture is the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment."

The major points that were raised during the workshop regarding the development of the SC definition and traits were:

1. The NRC stated that the goal of this workshop was to develop a SC definition and traits by engaging a broad range of stakeholders which would be used along with comments received on the SC policy statement to develop a final draft policy statement to be sent to the Commission in March 2011. If the Commission approves this policy statement, the individual NRC program offices will review their SC programs to determine if they need to be updated based on the policy statement. Finally, the NRC mentioned that there is a Commission meeting scheduled March 30, 2010, at NRC headquarters that will include discussions on SC.

2. Some panelists stated in their opening remarks acknowledged that they all strive to consider safety in their programs, but that it is difficult to create or change organizational cultures and it requires large amount of resources and time.

3. Other panelists noted in their opening remarks that leadership should be a key element in the definition of SC (e.g., professional leadership attitudes, leadership sets the tone for accountability and organizations are driven by their leadership's behaviors and actions).

4. During the discussions in the breakout and plenary sessions on the SC definition, the sample definitions (Attachment 4) were used to generate thoughts and ideas of what constitutes SC, leading to a new draft SC definition (Attachment 5). Some panelists had commented that two criteria necessary in a new SC definition should be that: (1) safety

is a priority; and (2) a strong safety culture should ensure the protection of people and the environment. Others indicated that transparency, trust, attitudes, behaviors, leaders and actions should be part of a SC definition. Additionally, it was decided by the plenary panel that the term security, and other aspects such as emergency preparedness, quality assurance and radiation protection, need not be included in the definition of SC because these aspects were understood to be necessary for the protection of people and the environment.

5. During the discussions in the breakout and plenary sessions on traits, the sample traits (Attachment 4) and the new draft SC definition (Attachment 5) were utilized to generate a list of behaviors needed to support a strong safety culture. The behaviors were grouped into categories and a higher level over-arching trait was developed that summarized the lower level behaviors that were developed (Attachment 5). Additionally, the panel came up with a few words to describe the over-arching new trait (Attachment 5).

6. A panelist indicated at the end of the workshop that adding security to the new draft SC definition (Attachment 5) would not resonate with the medical community because security is inherent in its safety culture.

7. Two workshop attendees offered other definitions of SC, for consideration by the panel, however the panel decided to keep the new draft SC definition developed in Attachment 5.

8. A few other workshop attendees expressed the view that the term “over competing goals” in the SC definition (Attachment 5) was not appropriate because it could cause organizations to implement small improvements to safety (e.g., adding the improvement would only increase safety by a factor of 10^{-19}), regardless of the cost and without any tangible benefit. Another workshop attendee indicated the public views nuclear power plants as regularly facing decisions where competing goals like safety versus the cost to implement the safety feature must be addressed. This same individual stated that having a strong SC reduces plant operational costs since problems are generally identified early and resolved before they can develop into a large more serious and costly problem to resolve. Thus, safety and cost are not competing goals. The panel voted to keep the new draft SC definition (Attachment 5) developed in the workshop rather than modify it.

9. Another panelist at the end of the workshop indicated that the NRC may want to consider honoring the products developed from the workshop. Additionally, the panelist made an observation that the definition developed at the workshop places more emphasis on the individual versus management or leadership found in other SC definitions.

10. An attendee commented that if you work at a nuclear power plant that lacks a strong SC, it is nice to have SC policy statement, with some authority from the NRC that can be used as a reference to help promote change. The attendee further stated that the workshop attendees and panelists did a good job in producing a SC definition and traits (Attachment 5), applicable to various NRC-regulated entities, with the goal of promoting a strong SC.

The major comments that were raised during the workshop regarding the SC policy statement (75 FR 1656; 74 FR 57525) were:

1. An attendee from Exelon Corporation requested that the NRC consider the products developed at the workshop (i.e., safety culture definition and traits; Attachment 5), when the NRC presents to the Commission the draft final SC definition and traits.

2. An attendee from the Nuclear Energy Institute (NEI) stated the importance of developing a common SC language (i.e., definition and traits), and this workshop provided a great start on developing a common SC language. The common SC language will allow licensees and regulators to understand/communicate with each other and adhere to a common policy statement. Furthermore, the nuclear power industry is eager and committed to moving forward with this initiative.

3. Another attendee from Strategic Team and Resource Sharing (STARS) (i.e., several nuclear power reactor sites that share resources consolidate selected support functions and purchases) stated that after polling a number of individuals across nuclear power plants, security is not accepted as part of the definition to SC, because it is an inherent element of safety. Additionally, this individual expressed that he likes the traits developed in this workshop since they take into account the individual attributes and behaviors in a few areas. One area that is important to this individual is the corrective action program (CAP). One of the areas that STARS struggles with regarding the reactor oversight process (ROP) implementation is whether something is a program issue, process issue, or is it an individual issue.

4. An attendee from Kettering Medical Center commented that he liked the NRC draft SC definition in the policy statement versus the one developed in the SC workshop, because it references the significance of the issue which builds needed flexibility into the definition.

Feedback was received which generally indicated success in achieving the goals of the workshop. Additionally, lessons learned on technology shortcomings will be factored into any additional workshops and/or meetings, as necessary.

The NRC is assessing the need for additional workshops and/or public meetings based upon the input from the panelist in the safety culture workshop and the safety culture workshop planning committee members.

Attachments:
1. February 2-4, 2010, Safety Culture Workshop Agenda
2. Attendance List
3. February 2-4, 2010, Safety Culture Workshop Panel List and Affiliation
4. Sample Safety Culture Definitions and Traits
5. Safety Culture Definition/Traits Developed from the February 2-4, 2010, NRC Workshop

1. An attendee from Exelon Corporation requested that the NRC consider the products developed at the workshop (i.e., safety culture definition and traits; Attachment 5), when the NRC presents to the Commission the draft final SC definition and traits.

2. An attendee from the Nuclear Energy Institute (NEI) stated the importance of developing a common SC language (i.e., definition and traits), and this workshop provided a great start on developing a common SC language. The common SC language will allow licensees and regulators to understand/communicate with each other and adhere to a common policy statement. Furthermore, the nuclear power industry is eager and committed to moving forward with this initiative.

3. Another attendee from Strategic Team and Resource Sharing (STARS) (i.e., several nuclear power reactor sites that share resources consolidate selected support functions and purchases) stated that after polling a number of individuals across nuclear power plants, security is not accepted as part of the definition to SC, because it is an inherent element of safety. Additionally, this individual expressed that he likes the traits developed in this workshop since they take into account the individual attributes and behaviors in a few areas. One area that is important to this individual is the corrective action program (CAP). One of the areas that STARS struggles with regarding the reactor oversight process (ROP) implementation is whether something is a program issue, process issue, or is it an individual issue.

4. An attendee from Kettering Medical Center commented that he liked the NRC draft SC definition in the policy statement versus the one developed in the SC workshop, because it references the significance of the issue which builds needed flexibility into the definition.

Feedback was received which generally indicated success in achieving the goals of the workshop. Additionally, lessons learned on technology shortcomings will be factored into any additional workshops and/or meetings, as necessary.

The NRC is assessing the need for additional workshops and/or public meetings based upon the input from the panelist in the safety culture workshop and the safety culture workshop planning committee members.

Attachments:
1. February 2-4, 2010, Safety Culture Workshop Agenda
2. Attendance List
3. February 2-4, 2010, Safety Culture Workshop Panel List and Affiliation
4. Sample Safety Culture Definitions and Traits
5. Safety Culture Definition/Traits Developed from the February 2-4, 2010, NRC Workshop

Electronic DISTRIBUTION:

R. Albert	J. Adams	V. Barnes	J. Braisted	J. Cai	C. Carpenter	G. Carpenter
M. Cash	C. Casto	M. Cheok	D. Coe	M. Delligatti	D. Dorman	J. Firth
T. Frye	L. Gerke	T. Harris	P. Hernandez	P. Holahan	D. Hudson	J. Ibarra J.
Jimenez	M. Keefe	J. Kotra	K. Martin	L. Langlie	M. Lemoncelli	R. Lewis
J. Luehman		D. Pasquale	J. Peralta	J. Piccone	P. Prescott	L. Rakovan
A. Ramey-Smith		D. Reinert	T. Reis	U. Shoop	M. Schwartz	D. Solorio
N. Rivera-Feliciano		B. Sosa	D. Thatcher	G. Tracy	S. Wastler	D. Weaver
R. Rasmussen		K. Witt	M. Virgilio	R. Virgilio	R. Zimmerman	C. Lui

ADAMS: ML100700065 ■ Publicly Available ■ Non-Sensitive

OFFICE	OE	OE/BC	OE/D
NAME	A. Sapountzis	D. Solorio	R. Zimmerman
DATE	3/ 2 /10	3/12/10	3/12/10

OFFICIAL RECORD COPY

February 2-4, 2010, Safety Culture Workshop Agenda

Day 1 (8:30 AM – 5:30 PM)

8:30 A.M. Opening Remarks (NRC/Roy Zimmerman) (10 min)

8:40 A.M. Workshop Details (NRC/Lance Rakovan and David Solorio) (65 min)
- a. Purpose of Workshop/What is success for this workshop? (25 min)
  - Develop definition of safety culture (SC) and determine description/traits
  - Discuss relationship between definition and description/traits to SC Policy Statement
  - Receive comments on SC Policy Statement
- b. What will be next steps following workshop (including what is plan for implementation down the road)? (5 min)
- c. Agenda – How meeting is structured (worked with external stakeholders to frame meeting structure) (10 min)
- d. Workshop ground rules (10 min)
- e. Introductions – Name/Organization/Affiliation of Panelist/Why Participating? (15 min)

9:45 A.M. NRC activities related to SC up to SC Policy Statement (NRC/Jose Ibarra and Molly Keefe (30 min)

10:15 A.M. 'What is Safety Culture" & how it affects big and small licensees (NRC/Dr. Valerie Barnes) (30 min)

10:45 A.M. Break (15 min)

11:00 A.M. Workshop Panelist Remarks – What does Safety Culture mean in their environment? (60 min) (Time will be determined based on number of speakers)

12:00 P.M. Lunch – (reflect on morning) (75 min)

1:15 P.M. Safety Culture Work So Far – INPO, NRC and Member of the Public safety culture definition (What works for your environment? – Explain what does not) (NRC/Dr. Valerie Barnes, INPO/Dr. Ken Koves, Public/Dave Collins) (30 min)

1:45 P.M. Discuss Objective of Breakout Sessions – What is success? (NRC/Maria Schwartz) (15 min)

2:00 P.M. Develop the SC common definition (3 Breakout Sessions: New Construction-Reactors and Power Reactors (Plaza Ballroom #3), Materials-Industrial and Fuel Cycle (Roosevelt Room), Materials-Medical (Plaza Ballroom #1 and #2)) (75 min)
- a. Each breakout group will begin discussions from a SC definition that will be provided only as a starting point

b. Panel members will be asked to add and/or subtract words to definition (using projected Microsoft Word document) and explain and discuss their suggestions
c. Goal is for NRC and panel members to arrive at a definition of SC they believe is common enough that they can in turn recommend be adopted by the panel as a whole
d. Facilitator presents to breakout audience for comment

3:15 P.M. Break (15 min)

3:30 P.M. Breakout sessions regroup/come back together and determine SC common definition (Plaza Ballroom #1 and #2) (60 min)
a. Review definitions produced from breakout sessions
b. Panel members will be asked to add and/or subtract words to definition (using projected Microsoft Word document) and explain and discuss their suggestions
c. Goal is for panel members to arrive at a single definition of SC they believe is common enough that they can in turn recommend be adopted by the panel as a whole

4:30 P.M. Opportunity for comment by audience (panel seeks to understand comments) (45 min)

5:15 P.M. Closing Remarks/Summary/Agenda for day 2 (NRC/Roy Zimmerman) (15 min)

5:30 P.M. End of Day 1

Day 2 (8:30 AM – 5:30 PM)

8:30 A.M. Introduction/Ground Rules (NRC/Lance Rakovan) (10 min)

8:40 A.M. Recap of Day 1 (NRC/David Solorio) (10 min)

8:50 A.M. Opportunity for comment by audience (30 min)

9:20 A.M. Resume If Necessary – Continue with development of the SC common definition (3 Breakout Sessions: New Construction-Reactors and Power Reactors (Plaza Ballroom #3), Materials-Industrial and Fuel Cycle (Roosevelt Room), Materials-Medical (Plaza Ballroom #1 and #2)) (70 min)
a. Review definitions against audience comments
b. Panel members will be asked to add and/or subtract words to definition (using projected Microsoft Word document) and explain and discuss their suggestions
c. Goal is for panel members to arrive at a single definition of SC they believe is common enough that they can in turn recommend be adopted by the panel as a whole
d. Facilitator presents to breakout audience for comment

10:30 A.M. Break (15 min)

10:45 A.M. Breakout sessions regroup/come back together and determine SC common definition (Plaza Ballroom #1 and #2) (60 min)
   a. Review definitions produced from breakout sessions
   b. Panel members will be asked to add and/or subtract words to definition (using projected Microsoft Word document) and explain and discuss their suggestions
   c. Goal is for panel members to arrive at a single definition of SC they believe is common enough that they can in turn recommend be adopted by the panel as a whole
   d. Facilitator presents to audience for comment

11:45 P.M. Lunch – (reflect on morning) (75 min)

1:00 P.M. NRC Remarks and Questions (NRC/DEDMRT Marty Virgilio) (30 min)

1:30 P.M. Opportunity for comment by audience (60 min)

2:30 P.M. Break (15 min)

2:45 P.M. Breakout sessions to determine SC description/traits (3 Breakout Sessions: New Construction-Reactors and Power Reactors (Plaza Ballroom #3), Materials-Industrial and Fuel Cycle (Roosevelt Room), Materials-Medical (Plaza Ballroom #1 and #2)) (150 minutes)
   a. Panel members will be asked to write down what they see as primary traits of SC on individual post-it notes
   b. Facilitator will collect post-it notes and request panel members provide their reasoning behind a sample of the suggestions
   c. Facilitator will aid panel members in organizing the input into broad categories
   d. Goal is for panel members to arrive at a list of SC traits they believe should be considered by the panel as a whole
   e. Facilitator presents to breakout audience for comments

5:15 P.M. Closing Remarks/Summary/Takeaways/Next Steps (NRC/Roy Zimmerman) (15 min)

5:30 P.M. End of Day 2

Day 3 (8:30 AM – 5:30 PM)

8:30 A.M. Introduction/Ground Rules (NRC/Lance Rakovan) (10 min)

8:40 A.M. Recap of Day 2 (NRC/David Solorio) (10 min)

8:50 A.M. If Necessary – Come Back Together and Determine the Description/Traits (Plaza Ballroom #1 and #2) (100 min)
   a. Review description/traits produced from breakout sessions
   b. May massage/revise the description/traits into a smaller number of more consistent format
   c. Consensus or present prepared definition
   d. Adding and subtracting words maybe both using yellow post it notes and Microsoft Word document to broadcast to audience (if time permits)

10:30 A.M. Break (15 min)

10:45 A.M. Opportunity for comment by audience (60 min)

11:45 A.M. Lunch – (reflect on morning) (75 min)

1:00 P.M. Continue as a group to determine the description/traits (Plaza Ballroom #1 and #2) (120 min)

a. Review description/traits produced
b. May massage/revise the description/traits into a smaller number of more consistent format
c. Consensus or present prepared language
d. Adding and subtracting words maybe both using yellow post it notes and Microsoft Word document to broadcast to audience

3:00 P.M. Comments on Policy Statement (Address questions in FRN) (Plaza Ballroom #1 and #2) (NRC/Alex Sapountzis and Maria Schwartz) (120 min)

5:00 P.M. Closing Remarks/Summary/Takeaways/Next Steps (NRC/Roy Zimmerman) (30 min)

5:30 P.M. Workshop Conclusion Day 3

Attendance List

On February 2-4, 2010, the NRC met with stakeholders to obtain input regarding a high-level safety culture (SC) definition, description/traits, in order to develop a more common terminology for SC across NRC-regulated entities. In addition, the NRC received comments on the draft SC policy statement.

Name	Organization
John Adams	Nuclear Regulatory Commission/Nuclear Reactor Regulations
Ron Albert	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Steve Amer	Epsilon Systems Solutions, Inc.
Valerie Barnes	Nuclear Regulatory Commission/Research
Shannon Barton	
Cheryl Ann Beegle	Department of Health and Human Services/CC-National Institute of Health
Charles Bowman	STPNOC
Johnathan Braisted	Nuclear Regulatory Commission/ Enforcement
Kevin Buckley	American Association of Physicists in Medicine
David Burton	Walter Reed AMC
James Cameron	Nuclear Regulatory Commission/R III
Patricia Campbell	General Electric Hitachi
W. Earl Carnes	Department of Energy
Patrick Card	Golden Brook Solutions, LLC
Cynthia Carpenter	Nuclear Regulatory Commission/ Federal and State Materials and Environmental Management Programs
Gene Carpenter	Nuclear Regulatory Commission/Research
John Carter	Virginia Commonwealth University
Gerard Castro	Joint Commission
Paul Chiasson	
Anisuzzaman Chowdhury	George Washington University Hospital
Larry Chung	Washington, D.C. Department of Transportation
Carlos Coffman	Department of Energy
Nicole Coleman	Nuclear Regulatory Commission/Enforcement
Dave Collins	Member of the Public
Lawrence Criscione	Nuclear Regulatory Commission/Research
Mike Crowthers	Susquehanna PPL
Kerstun Day	Nuclear Regulatory Commission/Enforcement
Elizabeth Dean	Virginia Commonwealth University
Curt Demaris	Department of Health for State of Washington
Tony DiPalo	Member of the Public
Dan Doorman	Nuclear Regulatory Commission/Nuclear Material Safety and Safeguards
Lynne Fairobent	American Association of Physicists in Medicine
Carolyn Faria-Ocasio	Nuclear Regulatory Commission/Enforcement
Nilda Feliciano-Rivera	Nuclear Regulatory Commission/New Reactors
James Firth	Nuclear Regulatory Commission/ Federal and State Materials and Environmental Management Programs
John Flack	Member of the Public

Attendance List On February 2-4, 2010, the NRC met with stakeholders to obtain input regarding a high-level safety culture (SC) definition, description/traits, in order to develop a more common terminology for SC across NRC-regulated industries. In addition, the NRC received comments on the draft SC policy statement.	
Name	**Organization**
Roland Fletcher	MD-Radiation Health Program
Carol Florian	Symetosphere, LLC
Wayne Frazier	National Aeronautics and Space Administration
Billie Garde	Attorney, Clifford and Garde, LLP
David Garchow	Institute of Nuclear Power Operations
Roy Garris	Symetosphere, LLC
Ron Gaston	Exelon
Ronnie Gardner	AREVA
Laura Gerke	Nuclear Regulatory Commission/ Enforcement
Ian Gifford	AFRRI
Mark Giles	Entergy
Fred Gigliotti	Westinghouse
Ronald Guye	Virginia Commonwealth University
Sonja Harber	Consultant- Human Performance Analysis Corporation
Nasreen Hasan	Nuclear Regulatory Commission/ Enforcement
Elizabeth Hearne	Frederick Memorial Health Care System
Pete Hernandez	Nuclear Regulatory Commission/ Enforcement
Dan Hibbing	George Washington University
Tomas Houghton	Nuclear Energy Institute
Dan Hudson	Nuclear Regulatory Commission/Research
Earl Hughes	Department of Energy
Jose Ibarra	Nuclear Regulatory Commission/ Enforcement
Alan Jacobson	MD Radiation Health Program
Rich Janati	Department of Environmental Protection-PA
Gary Janosko	PSEG
John Jensen	Department of Agriculture
Jose Jimenez	Nuclear Regulatory Commission/New Reactors
Jeffrey Joe	Idaho National Labs/Dept. of Energy
Mike Junge	Nuclear Regulatory Commission/ New Reactors
Martin Kamishan	Nuclear Regulatory Commission/Nuclear Reactor Regulations
Ernest Kapopulos	Progress Energy
Molly Keefe	Nuclear Regulatory Commission/Enforcement
Felix Kellar	Nuclear Energy Institute
Ken Koves	Institute of Nuclear Power Operations
Craig Lawrence	
Mauri Lemoncelli	Nuclear Regulatory Commission/General Counsel
Bob Link	AREVA
Lily Lodhi	Temple University
Lucy Lopez	Nuclear Regulatory Commission/ Enforcement

Attendance List On February 2-4, 2010, the NRC met with stakeholders to obtain input regarding a high-level safety culture (SC) definition, description/traits, in order to develop a more common terminology for SC across NRC-regulated industries. In addition, the NRC received comments on the draft SC policy statement.	
Name	**Organization**
Phil Lorette	Nuclear Regulatory Commission/Research
George Marshall	American Portable Nuclear Gauge Association
Dr. Charles Martin	Defense Nuclear Facilities Safety Board
Jack Martin	Backpacker
Richard Martin	ASTRO
Steve Mattmuller	Kettering Medical Center
Miles McCord	Howard University
Brett McCreary	Tennessee Valley Authority
Dr. Marlene McKetty	Howard university Hospital
Dave Midlik	Southern Nuclear Operating Company
Marie Miller	Nuclear Regulatory Commission/Region I
Steve Miller	Armed Forces Radiobiology Research Institute
Peter Miner	United States Enrichment Corporation
Bruce Montgomery	Constellation Energy Nuclear Group, LLC
Raul Munoz	UNESA
Chris Mudrick	Excelon
Tony Muschara	Error Management Consulting
Gwen Nalls	Shaw AREVA MOX Services, LLC
Jim Nance	Symetosphere
Paul Narbut	Paul Narbut and Associates
Christine Neely	PSEG
Joe Nick	Nuclear Regulatory Commission/Region I
Patty Nibert	Nuclear Regulatory Commission/Enforcement
Johnathan Ortega-Luciano	Nuclear Regulatory Commission/New Reactors
Mike Palmer	Susquehanna, PPL
Larry Parscale	Honeywell Specialty Materials
Terry Paterson	Constellation Energy Nuclear Group, LLC
Opha Peden	Virginia Commonwealth University
Julius Persensky	Idaho National Labs
Josie Piccone	Nuclear Regulatory Commission/ Federal and State Materials and Environmental Management Programs
Amanda Potter	American Association of Physicists in Medicine
Lance Rakovan	Nuclear Regulatory Commission/Executive Director for Operations
Deann Raleigh	SCIENTECH
Ann Ramey-Smith	Nuclear Regulatory Commission/Nuclear Reactor Regulations
Kevin Ramsey	Nuclear Regulatory Commission/Nuclear Material Safety and Safeguards
Mark Rasmussen	Professional Reactor Operator Society
Rick Rasmussen	Nuclear Regulatory Commission/ New Reactors
Dustin Reinert	Nuclear Regulatory Commission/ Enforcement

Attendance List

On February 2-4, 2010, the NRC met with stakeholders to obtain input regarding a high-level safety culture (SC) definition, description/traits, in order to develop a more common terminology for SC across NRC-regulated industries. In addition, the NRC received comments on the draft SC policy statement.

Name	Organization
Wayne Rice	Building and Construction Trades Department, AFL-CIO
Donald Richard	STARS Licensing Specialist, Callaway Plant
Robin Ritzman	First Energy
Joe Rizzi	Westinghouse Nuclear Corporation
Rafael Rodriguez	Nuclear Regulatory Commission/Nuclear Material Safety and Safeguards
Kate Roughan	QSA Global
Gabe Salamon	Xcel Energy
Alex Sapountzis	Nuclear Regulatory Commission/Enforcement
Maria Schwartz	Nuclear Regulatory Commission/Enforcement
Janet Schlueter	Nuclear Energy Institute
Cheryl Schultz	William Beaumont Hospital
Craig Seaman	NAC International
Shawn Seeley	Organization of Agreement States-Maine
Mark Shaffer	Nuclear Regulatory Commission/Federal and State Materials and Environmental Management Programs
Vernon Shanks	United States Enrichment Corporation
Karen Sheehan	Fox Chase Cancer Center
Diane Sieracki	Dominion Resources
Anthony Silakoski	Florida Power & Light Nuclear Fleet Security
Timothy Slede	American UE/Utlities Service Alliance
Kevin Smith	Savannah River Site Contractor
Undine Shoop	Nuclear Regulatory Commission/Nuclear Reactor Regulations
David Solorio	Nuclear Regulatory Commission/Enforcement
Belkys Sosa	Nuclear Regulatory Commission/Enforcement
Gayle Staton	Non-Destructive Testing Management Association
Mike Streitz	LLNL
Leonard Sueper	Xcel Nuclear
Mary Taormina	Virginia Commonwealth University
AJ Teahout	Armed Forces Radiobiology Research Institute
Duann Vanderslice Thistlewaite	Society of Nuclear Medicine
Richard Todaro	Washington CORE
Cindy Tomlinson	Society of Nuclear Medicine
Dr. Richard Toohey	Health Physics Society
Rich Turtil	Nuclear Regulatory Commission/Federal and State Materials and Environmental Management Programs
Marty Virgilio	Nuclear Regulatory Commission/Materials, Waste, Research, State, Tribal and Compliance Programs
Rosetta Virgilio	Nuclear Regulatory Commission/Federal and State Materials and Environmental Management Programs
Cindy Wagner	General Electric Hitachi Nuclear

Attendance List On February 2-4, 2010, the NRC met with stakeholders to obtain input regarding a high-level safety culture (SC) definition, description/traits, in order to develop a more common terminology for SC across NRC-regulated industries. In addition, the NRC received comments on the draft SC policy statement.	
Name	**Organization**
Joe Wang	NdSigma, LLC
Sandra Wastler	Nuclear Regulatory Commission/Nuclear Security and Incident Response
Doug Weaver	Nuclear Regulatory Commission/Nuclear Material Safety and Safeguards
Bruce Williams	Shaw Power Group
Claude Williams	Howard University
Victoria Winfrey	Prairie Island tribal Council
Kevin Witt	Nuclear Regulatory Commission/Nuclear Material Safety and Safeguards
Charles Workman	G4S Regulated Security Solutions
Roosevelt Word	SCE&G SCANA
Roy Zimmerman	Nuclear Regulatory Commission/Enforcement

February 2-4, 2010, Safety Culture Workshop Panel List and Affiliation

Panelist List and Affiliation

1. Kevin Buckley (American Association of Physicists in Medicine)
2. Gerard Castro (Joint Commission)
3. David Collins (Member of the Public)
4. David Garchow (Institute of Nuclear Power Operations)
5. Billie Garde (Attorney, Clifford and Garde, LLP)
6. Tom Houghton (Nuclear Energy Institute)
7. Bob Link (AREVA)
8. George Marshall (American Portable Nuclear Gauge Association)
9. Wayne Rice (Building and Construction Trades Department, AFL-CIO)
10. Diane Sieracki (Dominion Resources)
11. Gayle Staton (Non-Destructive Testing Management Association)
12. Duann Vanderslice Thistlewaite (Society of Nuclear Medicine)
13. Dr. Richard Toohey (Health Physics Society)
14. Victoria Winfrey (Prairie Island Indian Community Tribal Council)
15. Bruce Williams (Shaw Power Group)
16. Chuck Workman (G4S Regulated Security Solutions)

Breakout Session 1: New Construction-Reactors and Power Reactors

1. David Garchow (Institute of Nuclear Power Operations)
2. Victoria Winfrey (Prairie Island Indian Community Tribal Council)
3. Tom Houghton (Nuclear Energy Institute)
4. Wayne Rice (Building and Construction Trades Department, AFL-CIO)
5. Diane Sieracki (Dominion Resources)
6. Bruce Williams (Shaw Power Group)
7. Chuck Workman (G4S Regulated Security Solutions)
8. Billie Garde (Attorney, Clifford and Garde, LLP)
9. David Collins (Member of the Public)

Breakout Session 2: Materials-Industrial and Fuel Cycle

1. George Marshall (American Portable Nuclear Gauge Association)
2. Gayle Staton (Non-Destructive Testing Management Association)
3. Dr. Richard Toohey (Health Physics Society)
4. Bob Link (AREVA)

Breakout Session 3: Materials-Medical

1. Kevin Buckley (American Association of Physicists in Medicine)
2. Gerard Castro (Joint Commission)
3. Duann Vanderslice Thistlewaite (Society of Nuclear Medicine)

Sample Safety Culture Definitions and Traits

Sample Safety Culture Definitions								
European Strategic Safety Initiative	**UK Health and Safety Executive (1993)**	**U.S. Nuclear Regulatory Commission (NRC) (Draft-2009)**	**Institute of Nuclear Power Operations (INPO)**	**International Atomic Energy Agency (IAEA)/International Nuclear Safety Group (INSAG-4; 1991)**	**Member of the Public Mr. David Collins**	**Guldenmund (2000)**	**Mearns, et al (2003)**	**Von Thaden and Gibbons (2008)**
Safety Culture is the set of enduring values and attitudes regarding safety issues, shared by every member of every level of an organization. Safety Culture refers to the extent to which every individual and every group of the organization is aware of the risks and unknown hazards induced by its activities; is continuously behaving so as to preserve and enhance safety; is willing and able to adapt itself when facing safety issues; is willing to communicate safety issues; and consistently evaluates safety related behavior.	The product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management.	That assembly of characteristics, attitudes, and behaviors in organizations and individuals which establishes that as an overriding priority, nuclear safety and security issues receive the attention warranted by their significance.	An organization's values and behaviors—modeled by its leaders and internalized by its members—that serve to make nuclear safety the overriding priority.	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.	Professional leadership attitudes in a High Reliability Organization that ensure potentially hazardous activities are managed to maintain risk to people and the environment as low as reasonably achievable thereby maintaining stakeholder trust.	Those aspects of the organizational culture which will impact on attitudes and behavior related to increasing or decreasing risk.	Safety Culture … forms the environment within which individual safety attitudes develop and persist and safety behaviors are promoted.	The enduring value and prioritization of worker and public safety by each member of each group and in every level of an organization.

Attachment 4

Sample Safety Culture Traits					
European Strategic Safety Initiative	**NRC (Draft)**	**INPO**	**IAEA/INSAG-4**	**Member of the Public Mr. Dave Collins**	**Christian, et al**
Commitment	Personnel demonstrate ownership for nuclear safety and security in their day-to-day activities.	Everyone is personally responsible for nuclear safety.	Safety is a clearly recognized value.	Excellence Behaviors:(1) Communicates and models values; (2) Clearly communicates expectations; (3) Focus is on value not cost; (4) Ensures training, resources; (5) Good problem-solver and coach; and (6) Promotes open, deep organization learning.	Management commitment to safety.
Behavior	Process for planning and controlling work activities are implemented such that safety and security are maintained.	Leaders demonstrate commitment to safety.	Leadership for safety is clear.	Integrity Behaviors:(1) Does the right thing (behaves ethically); (2) Communicates openly and honestly; (3) Makes conservative decisions; (4) Addresses issues promptly, properly; (5) Uses failures to learn, not punish; and (6) Ensures appropriate accountability.	Human resources practices.
Awareness	The organization maintains a safety conscious work environment in which personnel feel free to raise safety and security concerns without fear of retaliation.	Trust permeates the organization.	Accountability for safety is clear.	Relationship Behaviors: (1) Listens carefully to suggestions; (2) Welcoming and respectful; (3) Promotes diversity, development; (4) Compliments more than criticizes; and (5) Promotes work/life balance.	Quality of safety systems.
Adaptability	The organization ensures that issues potentially impacting safety or security are promptly identified, fully evaluated, and promptly addressed and corrected commensurate with their significance.	Decision-making reflects safety first.	Safety is integrated into all activities.		Supervisor support for safety.
Information	The organization ensures that the personnel, equipment, tools, procedures, and other resources needed to ensure safety and security are available.	Nuclear technology is recognized as special and unique.	Safety is learning driven.		Internal group processes.
Justness	The organization's decisions ensure that safety and security are maintained.	A questioning attitude is cultivated.			Group boundary management
	Roles, responsibilities, and authorities for safety and security are clearly defined and reinforced.	Organizational learning is embraced.			Risk associated with activities/ environment
	The organization maintains a continuous learning environment in which opportunities to improve safety and security are sought out and implemented.	Nuclear safety undergoes constant examination.			Work pressure
					Leadership

Safety Culture Definition/Traits Developed from the February 2-4, 2010, NRC Workshop

Safety Culture Definition
Nuclear safety culture is the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment.

Trait #1: Problem Resolution and Metrics
The organization ensures that issues potentially impacting safety or security are promptly identified, fully evaluated, and promptly addressed and corrected commensurate with their significance.

Trait #2: Personal Responsibilities and Attitudes
Everyone is personally responsible for nuclear safety.

Trait #3: Processes and Procedures
Processes for planning and controlling work activities are implemented such that safety is maintained.

Trait #4: Continuous Learning
Organizational learning is embraced.

Trait #5: Leadership Safety Behaviors
Leaders demonstrate commitment to safety.

Trait #6: Effective Safety Communication
Effective communication is essential to maintain focus on safety.

Trait #7: Encouraging Report of Problems
The organization maintains a safety conscious work environment in which personnel feel free to raise concerns without fear of retaliation.

Trait #8: Respectful Work Environment
Trust and respect permeate the organization.