HRO Safety Culture Definition
An Integrated Approach
Jan 2010

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Language and Responsibilities

What is a HRO?

High Reliability Organization

An organization that operates and manages processes with the potential to adversely affect human life or the environment.

Example: Nuclear Power Organization
Language and Responsibilities
What is HRO Safety Culture?

Safety
Making sure that people are not harmed

Culture
How we do things around here

So the Simplest Definition of Safety Culture is:

“Making sure people are not harmed is how we do things around here”
Language and Responsibilities
What is HRO Safety Culture (exactly)?

What is Wrong With INSAG Definition?

“Safety Culture is that assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear plant safety issues receive the attention warranted by their significance.”
Language and Responsibilities
What is HRO Safety Culture (exactly)?

2002 Meserve Said “Not Crisp”
What kind of characteristics?
What kind of attitudes?
What kind of organization?
What individuals?
Why is attention warranted?
Why are these issues significant?

Quality Management:
You must start a clear definition to have an accurate objective assessment
Language and Responsibilities
What is HRO Safety Culture (exactly)?

Quality Management:
You must start with a clear definition to have accurate objective assessment
Language and Responsibilities
What is HRO Safety Culture (exactly)?

Clear definition - HRO Safety Culture

Professional leadership attitudes in a High Reliability Organization that manage potentially hazardous activities to maintain risk to people and the environment as low as reasonably achievable, thereby assuring stakeholder trust.
Language and Responsibilities
What is HRO Safety Culture (exactly)?

This Definition Clarifies Six Areas:

What kind of characteristics?
(leadership attitudes that ensure stakeholder trust)

What kind of attitudes?
(professional ones)

What kind of organization?
(a high reliability organization)

What individuals?
(the organization leadership)

Why is attention warranted?
(managing potentially hazardous activities)

Why issues significant?
(involves managing the risk of harm to people, environment)
Language and Responsibilities
What is HRO Safety Culture (exactly)?

An Integrated Definition

Professional       Dr. Zack Pate, Dr. Joe Rees INPO “Professionalism Project”
leadership attitudes     Dr. Edgar Schein “Organizational Culture and Leadership”
in a High Reliability Organization     Nuclear power, Medical, Chemical etc.
that manage potentially hazardous activities     Dr. William Corcoran “RCA”
to maintain risk to people and the environment as low as reasonably achievable     Dr. James Reason “ALARP”
thereby assuring stakeholder trust.     Millstone event (and many others)
“Strategic Culture Management”
Generic Definition Any Kind of Culture
(Not specific to Nuclear Safety or HRO culture)

Example

**Nuclear Safety Culture**
“An organization’s values and behaviors—modeled by its leaders and internalized by its members—that serve to make nuclear safety the overriding priority.”

**Ice Cream Sandwich Culture**
“An organization’s values and behaviors—modeled by its leaders and internalized by its members—that serve to make ice cream sandwiches the overriding priority.”
Language and Responsibilities
Why Not Use Proposed NRC Definition?

Types of Organization Cultures

Types of Safety Cultures

Types of HRO Safety Cultures

SCWE
Language and Responsibilities
Why Not Use Proposed NRC Definition?

Types of Organization Cultures
Management, Operations, Engineering, Maintenance, HR, Training, Security, Safety

Types of Safety Cultures
OSHA, Electrical, Fire, Security, Medical, HRO

Types of HRO Safety Cultures
Regulatory Compliance, Procedural Compliance, Quality Reviews, Questioning Attitude, Appreciation of Risk, Conservative Decision-making, Human Performance, Training, Learning Organization, SCWE

SCWE
Fielding and addressing safety issues raised by employees
Language and Responsibilities
Why are Leaders Responsible for Culture?

Leadership Culture Nexus

Schein Leaders create the org culture, and if there are culture problems, it is up to the org leaders to correct them.

INPO safety culture is the central role of leadership.

INSAG safety culture flows down into the org from the actions of senior leadership.

Marquardt There are only 2 ways to change culture, you can change leaders, or you can change leaders.

Olivier there are always a couple of managers who just don’t “get it” the most important thing is, they cannot remain on the leadership team.

Espenship to have a healthy org culture every member of the management team needs to be able to manage culture.
Language and Responsibilities
Who is Responsible for Safety Culture Regulation?

Primarily responsible – NRC
Generally responsible - INPO, NEI
Next Step

The Root Cause of Most Culture Events
INPO Human Performance

“Without leadership intervention, production practices will overcome those aimed toward prevention. Production behaviors will take precedence over prevention behaviors unless there is a strong safety culture the central focus of leadership.”
Next Step

Leaders Create Culture

DON'T BRING ME PROBLEMS. BRING ME SOLUTIONS.

WHEN I BRING YOU SOLUTIONS, YOU TELL ME THEY WON'T WORK AND TREAT ME LIKE A MORON.

WHAT'S THE PROBLEM WITH THAT?

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Leaders Create Culture
Safety Culture – the Central Focus of Leadership

Management is “Doing Things Right”
Leadership is “Doing the Right Things”

- Peter Drucker
INPO Human Performance

Without leadership intervention production practices will overcome those aimed toward prevention. Production behaviors will take precedence over prevention behaviors unless there is a strong safety culture—the central focus of leadership.

Healthy relationships between managers and workers are necessary to promote a sense of wariness toward error and an intolerance toward error-likely situations. Wariness and intolerance are attitudes, generally derived from one’s beliefs about hazards in the plant.

Safety and prevention behaviors do not just happen. They are value-driven. Hence, the need for leadership.”
Leaders Create Culture
Safety Culture – the Central Focus of Leadership

INPO Human Performance

“A robust safety culture requires aggressive leadership emphasizing healthy relationships that promote open communication, trust, teamwork, and continuous improvement.

Continuous improvement needs ongoing leadership attention to improve the plant’s resistance to events triggered by human error (defense-in-depth).

Those in positions of responsibility must see themselves as leaders as well as managers to create an atmosphere of open communication. Therefore, leadership is a defense.

Interactions involving quality coaching and counseling will promote clear values and improve performance.”
Leaders Create Culture
Safety Culture – the Central Focus of Leadership

Millstone Recovery Restart Meeting April 1999

CHAIRMAN JACKSON: Let me ask you this kind of summary question. You believe this has been the most unprecedented recovery in the history of the industry. Other plants have shut down for multi-year shutdowns and they have had to work through a number of issues and have spent a lot of money. What has made this the most unprecedented recovery?

MR. OLIVIER: In my mind there were two issues. I think the restoration of trust with the employees I think was a significant effort. I think re-establishing the safety conscious work environment that I think was really damaged in the past is different than any other plant that I have known, at least of the magnitude of what we had at Millstone Station.

CHAIRMAN JACKSON: Mr. Kenyon looks like he wants to say something.
Leaders Create Culture
Reestablishing a SCWE - Restoring Trust

MR. KENYON:
The trust relationship that you would want to exist between employees and management had been damaged very badly, and thus the challenge of re-establishing that relationship, which you can't legislate. You have to earn it.

MR. BOWLING:
I would like to also add that we had really lost your trust as well and also the trust of the public, so I think from my perspective what has made this unprecedented is not only having to restore the trust of our employees but having to restore your trust and to restore the trust of the public.

As Chairman Jackson said, “what was so unprecedented about the Millstone Recovery?”
Unprecedented was … how badly damaged the (stakeholder) trust relationship and how Leadership repaired it to the point where stakeholders universally felt it was (not just acceptable but) “robust”.

Leaders Create Culture
Reestablisihng a SCWE - Restoring Trust
Leaders Create Culture
Let’s Play “What If … “

2002 PLAIN DEALER – Apostolakis

“For the last 20 to 25 years,” he said, “this agency has started research projects on organizational-managerial issues that were abruptly and rudely stopped because, if you do that, the argument goes, regulations follow.

So we don’t understand these issues because we never really studied them.”
Next Step

Learning to Assess Manage Regulate
Learning to Assess Manage Regulate
Are You Willing to Raise a Concern?

Are You Willing to Raise a Concern?

“If you knew of a situation that was making appendix B compliance impossible, would you raise this concern?” I am highly confident almost all employees would answer “yes” including the members of the pre-event Davis Besse management team.

But Davis Besse managers did not address this kind of issue. Part of what we need is to find out to assess culture if employees are afraid to take an ethical stand, afraid to fight (if necessary) for safety.

“Are You Willing to Raise a Concern?” Is not the right question. The question is, if you feel management is not managing safety properly, what would you do about?
What is trust?

Trust is an expectation for future performance based on past performance. In the context of nuclear safety culture, it is demonstrating to stakeholders over an extended time that you are (consistently and continually) “doing the right things”.
Learning to Assess Manage Regulate
What (Exactly) Are We Assessing?

What we are assessing (exactly) is the quality of the safety culture. Here is a quote from Bill Corcoran’s “Firebird Forum”

NUCLEAR QUALITY ASSURANCE
About Quality Assurance
Quality Assurance, as stated in the Code of Federal Regulations, is the process for performing "all those planned and systematic actions necessary to provide adequate confidence that a structure, system or component will perform satisfactorily in service." This goes well beyond the activities of the Nuclear Performance Assessment Department (NPAD). In fact, it implies that QA is the way business is required to be done.
Learning to Assess Manage Regulate
What (Exactly) Are We Assessing?

Here is another definition of safety culture from the human performance quality management perspective.

**Safety Culture (Human Performance, Quality Management)**
A human performance based safety system requiring maintenance and quality management like any safety related (e.g. electro-mechanical based) system.

NRC needs to add “Safety Culture” to the 10CFR50 Appendix B QA Topical Report so that operating organizations will dedicate the appropriate resources to maintaining safety culture quality.
Learning to Assess Manage Regulate
How Do We Do an Objective Assessment?

MRPB Management and Regulation of Professional Behaviors.
A safety culture quality management approach based on the theory that the safety of operations relies on three fundamental professional leadership (EIR) behaviors.

Commitment To Excellence
Leadership has to provide training, coaching, set expectations, do monitoring, reinforcement.

Commitment To Integrity
If a project is experiencing time or cost pressures you must not punish / blame staff for having schedule or quality problems, if under normal circumstances you would investigate what was wrong and provide the extra time, training, resources needed.

Commitment To Relationships
Leadership has to treat staff with respect, fairness, humanity (work / life balance) and value reporting so staff will continue to flag (and leadership can continue to fix) problems.
Learning to Assess Manage Regulate
How Do We Do an Objective Assessment?

Trust (Culture) Management Processes
Assessment (Schein) Corporate Culture Survival Guide
Quality Management (Six Sigma) Define Measure Assess Mange Regulate
Corrective Actions Process (Drucker) SMARTER
Corrective Actions Program (Existing Site Program)

Fundamental and Rollup EIR Behaviors

<table>
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<th>Relationship Behaviors</th>
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<td>Communicates and models values</td>
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<td>Communicates openly and honestly</td>
<td>Welcoming and respectful</td>
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<tr>
<td>Focus is on value not cost</td>
<td>Makes conservative decisions</td>
<td>Promotes diversity, development</td>
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<td>Ensures training, resources</td>
<td>Addresses issues promptly, properly</td>
<td>Does not under manage, over task</td>
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<td>Good problem-solver and coach</td>
<td>Uses failures to learn, not punish</td>
<td>Compliments more than criticizes</td>
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<td>Promotes open, deep org learning</td>
<td>Ensures appropriate accountability</td>
<td>Promotes work / life balance</td>
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TRUST FORMULA
Trust = Observed Professional Behavior Over a Period of Time
= [Excellence + Relationships + Integrity] / Time
Learning to Assess Manage Regulate
How Do We Do an Objective Assessment?

PROCESS RELATIONSHIPS FOR MRPB CULTURE MANAGEMENT APPROACH
[MANAGEMENT AND REGULATION OF PROFESSIONAL BEHAVIORS]

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<td>FOCUS GROUPS (SHEIN)</td>
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Learning to Assess Manage Regulate
How Do We Do an Objective Assessment?

What About the NRC 13 Safety Culture Components???

1. Decision-making
2. Resources
3. Work control
4. Work practices
5. Corrective action program
6. Operating experience
7. Self and independent assessments
8. Environment for raising safety concerns
9. HIRD, preventing, detecting
10. Accountability
11. Continuous learning environment
12. Organizational change management
13. Safety policies
# Learning to Assess Manage Regulate

## How Do We Do an Objective Assessment?

**Seven are Covered by the SWIM**
(Survey of Worker Interactions with Managers)

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- Decision-making
- Safety Policies
- Continuous learning
- Resources

- Decision-making
- Safety Policies
- Accountability
- SCWE
- HIRD

- Decision-making
- Continuous learning
- Resources
- SCWE
- HIRD
Learning to Assess Manage Regulate
How Do We Do an Objective Assessment?

Six are Programs that are Audited by internal Oversight
Operating experience
Self and independent assessments
Work control
Work practices
Corrective action program
Organizational change management

Auditing these programs
Is of low value in assessing / managing / regulating culture as they are the “resultants” and not the “determinants” of culture. Behavior affects the quality of these programs, these programs do not affect the quality of behavior.

Example there was nothing wrong with the Davis Besse CAP, it was how management was using it to defer mods essential to full appendix B compliance. Not likely you will pick this up auditing the program, you need to have discussions with workers. You might say “what if we see large numbers of CAP items being deferred?” I would say “you will also see this in a healthy culture”.

Learning to Assess Manage Regulate
How Do We Do an Objective ROP Assessment?

MRPB Number
A number providing an objective measure of site wide organization safety culture quality. The MRPB number is calculated by subtracting the number of SRFA workers affected by weak culture management from the total number of SRFA workers, and dividing by the total number of SRFA workers (i.e. normalizing the result).

Example:
Site with 1,000 SRFA workers. SWIM results indicate a weak culture is affecting 200 SRFA workers, the MRPB number would be \( \frac{1000 - 200}{1000} = 0.8 = 80\% \).
Next Step

Conclusions
Conclusions
Good Management Produces Safety

We have the necessary pieces we can begin
Minimal Regulatory Compliance is high risk (not good) management in a HRO. There are now successful safety culture management models both inside and outside of the nuclear industry that can be used to develop a program. All the necessary pieces are there for effective assessment, management and regulation, all that is required now is for NRC to pick them up and begin the “next step”.

What success looks like
Over the next few years we should see an industry-wide accredited program that is self-assessing and self-reporting (with a standard normalized objective threshold value). Only when the culture (quality, health) drops below the established threshold would a licensee report to NRC be required.

Better ROP assessments
Site wide culture health leadership reports for SRFAs (safety related functional areas) would be made available as needed for NRC to triangulate NCVs NOVs against and evaluate whether violations have any managerial or cultural basis.
Conclusions
Good Management Produces Safety

From: Ed Schein [mailto:scheine@comcast.net]
Sent: Friday, October 09, 2009 6:31 PM
To: David M Collins (Generation - 4)
Subject: Re: I am doing a presentation at NRC ACRS the afternoon of Nov 12th

Thanks for your note and the various items of information which I won’t read immediately but which I am very glad to have as I work my way farther into this. On the use of my quotes, the one where I talk about INPO would now be out of date--they are paying attention to culture so it would not be appropriate for you to use that quote unless you put it in the context of the past.

The other thought for you to consider is that good management produces safety. When there are safety problems it usually means bad management somewhere in the system.
Conclusions
Good Management Produces Safety

At some point the safety assessors have to be prepared to call the problem what it is—senior executives who care more about finances than safety, middle managers who care more about productivity because that is what senior managers reward them for, and supervisors who suppress employee complaints and efforts to identify safety problems because it takes too much time to look into things and to convince their bosses about critical maintenance issues that may be surfacing.

What makes safety culture so complicated is that we are trying to build safety into badly managed companies!!! What do you think about that observation?

Ed Schein
MR. ROSEN: I don't want to be here three years from now with another plant, XYZ plant, that's had a serious incident, maybe even an accident, whose root cause was the same kind of safety culture deficiencies that happened at Davis-Besse.

MR. APOSTOLAKIS: Yes, of course.

MR. ROSEN: And that we didn't do something different. That we just saw Davis-Besse, knew what the root cause was and safety culture and said "Okay, we'll just keep doing the same regulatory stuff we have now."

CHAIRMAN BONACA: Exactly. Exactly.

MR. ROSEN: Because what that is is an embodiment of the commonest definition of insanity, right? Doing the same thing over and over and expecting different results.

MR. APOSTOLAKIS: I'm with you. I'm with you.
Q&A
### Glossary of Safety Culture Terms

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<th>Term</th>
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<tr>
<td>ADRL</td>
<td>Arrogant, Dismissive, Refuses to Listen. Characteristic LEM behaviors identified by safety culture consultant John Beck. ADRL Management Team behaviors are toxic to the development of a healthy safety culture. ADRL behaviors block development of questioning attitude, continuous improvement, and a learning organization.</td>
</tr>
<tr>
<td>ALARA (Safety Culture Management)</td>
<td>As Low As Reasonably Achievable. A theory holding that full regulatory compliance (government and communitarian, NRC and INPO) is insufficient and that also correcting all reasonable safety issues identified by workers is necessary to maintain operating risk ALARA (see opposing theory MRC).</td>
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<tr>
<td>CCA</td>
<td>Culture Corrective Action. An area of culture weakness vetted by facilitated workgroup discussions. A CCA provides actionable information for culture remediation to the SLT.</td>
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<td>CCWE</td>
<td>Cost Conscious Work Environment. An environment where a strong cost focus is appreciated and a safety focus beyond minimal regulatory compliance is denigrated.</td>
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<td>CFA</td>
<td>Culture Focus Area. An area of potential culture weakness identified by a culture survey for focused investigation. A CFA provides no actionable information for culture remediation, no conclusions should be inferred.</td>
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<tr>
<td>Glossary of Safety Culture Terms</td>
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<td><strong>Corcoran Quote 1</strong></td>
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<td><strong>Davis Besse Root</strong></td>
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<tr>
<td><strong>Cause – Failure of Internal Oversight</strong></td>
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<td>&quot;It was determined that the root cause was that D-B’s nuclear safety values, behaviors and expectations were such that oversight was not set apart, in terms of expectations and performance standards, from the balance of the station.&quot;</td>
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<tr>
<td><strong>Degraded</strong></td>
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<tr>
<td>Reduced in rank, reputation, esteem or value</td>
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<tr>
<td><strong>DLIL attitude</strong></td>
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<tr>
<td>“Don’t like it then leave” attitude. Manager attitude that an employee who does not accept an organizational (i.e. manager) decision (e.g. that a safety issue need not be addressed) must accept the decision or go work elsewhere. A manager with this attitude will take actions to encourage such an employee to leave, such as treating the employee with contempt, or damaging the employee’s reputation in some manner such as fabricating evidence of poor performance (see FON).</td>
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Glossary of Safety Culture Terms

**DMAIC**
A six-sigma quality management process consisting of five steps:
- Define high-level goals and the process.
- Measure key aspects of the process and collect relevant data.
- Analyze the data to assess cause-and-effect relationships.
- Improve or optimize the process based upon data.
- Control to ensure that any deviations from target are corrected.

**DMDVR**
A six-sigma process (variant of DMAIC) applied to organizational (HRO) safety culture quality management consisting of five steps:
- Define safety culture quality goals, process, and performance indicators.
- Measure worker perceptions of leadership professional behavior in SRFAs, identify CFAs.
- Analyze the CFAs and determine if the LEB perceptions are valid MRPB deficiencies.
- Manage leadership performance above a minimum SWIM level.
- Regulate site-wide culture performance above a minimum MRPB performance level.

**DPM**
Developing Professional Manager. A manager in a HRO that is working on developing (improving) professional behaviors.

**Ethic Cleansing**
WHISTLEBLOWER ISSUES IN THE NUCLEAR INDUSTRY CONGRESSIONAL HRG.
103-521 “The industry systematically eliminates its critics in a methodology not unlike ethnic cleansing — or a more apt description in this situation, "ethic" cleansing. The industry's ethic cleansing seeks to silence the voices of those whose only concern is nuclear safety and ethics. An individual who questions either the inaction of the NRC or the licensee is conveniently and viciously discredited, demeaned, subject to psychiatric examinations, portrayed as a radical or a disgruntled employee, and eventually is cleansed by termination or buy-out.”

**Ethical Attitude**
Concern for the impact of one's behavior on people or the environment.
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<td>FON</td>
<td>Fabrication of negatives. A common type of HIRD where a DPM fabricates or exaggerates worker negatives with the intent of encouraging a worker to leave (see DLIL).</td>
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<tr>
<td>Healthy Organization Culture</td>
<td>Organization culture where behavior aligns with the stated desired (espoused) values.</td>
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<td>HPM</td>
<td>Highly Professional Manager. A manager in a HRO that ensures stakeholder trust by managing excellence and relationships with integrity over time.</td>
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<tr>
<td>HIRD</td>
<td>Harassment, Intimidation, Retaliation, Discrimination. Adverse actions typically taken against a HEA employee for engaging in a protected activity. The adverse activity is typically taken by a LEM to encourage the employee to either stop the activity, or to leave the workgroup or company.</td>
</tr>
<tr>
<td>HRO</td>
<td>High Reliability Organization. An organization that operates and manages processes that have the potential to adversely affect human life or the environment. Example: a nuclear power operating organization.</td>
</tr>
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<td>INPO (Managing Defenses)</td>
<td>The defense in depth barriers are: worker, manager, internal oversight, external oversight. The way to manage defenses is to identify, assess and correct conditions adverse to quality in a timely manner.</td>
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<tr>
<td>Kings Afloat</td>
<td>A nuclear industry manager attitude identified in Perin “Shouldering Risks”. [Some industry managers, especially Navy ex-officers, reenact the superior-subordinate role and brook no dissent. “Some industry managers still impose that requirement, and by random report some still scream and intimidate. Like captains of yore, some think of themselves as ‘kings afloat’]. If this attitude continues unchallenged (by subordinates) and uncorrected (by senior management) this can evolve into an accepted culture, can become “how we do things around here”.</td>
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Glossary of Safety Culture Terms

**MRPB**
Management and Regulation of Professional Behaviors. A safety culture quality management approach based on the theory that the quality of the HRO safety culture is determined by the collective professional management behaviors of the leadership team.

**MRPB Number**
A number providing an objective measure of a HRO (for example nuclear plant site) safety culture. After leadership SWIM survey results are vetted through the SMARTER process (facilitated discussions and fact finding), the MRPB number is calculated by subtracting the number of SRFA workers affected by weak culture management from the total number of SRFA workers, and dividing by the total number of SRFA workers. Example: say a site has 1,000 SRFA workers. If the (vetted) survey results indicate a weak culture is affecting 200 SRFA workers, the MRPB number would be \((1000 - 200) / 1000 = 0.8 = 80\%\).

**MRC**
MRC is an unproven management “brainchild” theory holding that optimal economics requires that those concerns of staff not associated with satisfying a regulator be ignored. MRC theory relies heavily on the regulator to manage risk, as over time the other “defense in depth” barriers (worker, manager, internal oversight) may become eroded (see opposing theory ALARA).

**MSM**
Most Senior Manager. Typically the “C” level manager in the HRO (but not necessarily the organization CEO). An energy company may have various types of generating facilities, but the nuclear plants may be the only HROs. In nuclear power the CNO (chief nuclear officer) is specifically responsible (primarily responsible, more responsible than any other manager including the CEO) for the quality of the culture that develops in the nuclear organization. See safety culture definition (HRO): *Maintaining the quality of the safety culture in the HRO is … the specific responsibility of the MSM.*
# Glossary of Safety Culture Terms

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<td>NSE attitude</td>
<td>&quot;Not Safe Enough&quot; attitude. An employee (often HEW) attitude that indicates &quot;I am more concerned with safety than cost&quot;. If a SCWE environment has been established, promotion and advancement opportunities are increased by this attitude (decreased if a CCWE has been established).</td>
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<td>NTP attitude</td>
<td>Not a Team Player. Manager attitude in a CCWE that an employee who raises safety concerns beyond what is required by regulators is &quot;not a team player&quot;. NRC investigations at Millstone in the early 90's showed that employees who had raised safety concerns were being given poor performance reviews in the areas of &quot;teamwork&quot; and &quot;communications&quot;.</td>
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<tr>
<td>Professionalism (High Reliability Organization)</td>
<td>An HRO employee attitude that reflects a commitment to continuous professional development, ethical practice, an understanding of and sensitivity to diversity, and a responsible attitude toward their profession, their stakeholders, and society.</td>
</tr>
<tr>
<td>Professionalism (Medical Organization)</td>
<td>From Roberts &quot;The Essential Guide to Medical Staff Reappointment&quot; Practitioners are expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, an understanding of and sensitivity to diversity, and a responsible attitude toward their profession, their patients, and society.</td>
</tr>
<tr>
<td>Protected Activities</td>
<td>In an HRO that is regulated as a matter of public policy, is unlawful for an employer to fire you or discriminate against you with respect to pay, benefits, or working conditions because you help the Regulator or raise a safety issue or otherwise engage in protected activities.</td>
</tr>
<tr>
<td>Realistic Conservatism</td>
<td>NRC Strategic Plan (NUREG-1614, Vol. 3) As the agency continues to learn from operational experience and develops more effective ways of assessing risks and using risk-informed and performance-based approaches founded in &quot;realistic conservatism,&quot; it is better able to make appropriate safety decisions and to better allocate resources to areas where they will have the greatest positive effect.</td>
</tr>
<tr>
<td>Glossary of Safety Culture Terms</td>
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<td>---------------------------------</td>
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</tr>
<tr>
<td><strong>Regulatory Relief</strong></td>
<td>There is a debate in congress over whether the NRC should be able to impose requirements that are unquantifiable. Some feel legislation (to be effective) must force regulatory agencies to base regulatory decisions on costs, benefits, and calculated risks. Therefore, as long as safety culture regulation is viewed as “unquantifiable” (it is not, it is quantifiable) it is unlikely there will ever be sufficient impetus to enact effective safety culture regulation.</td>
</tr>
<tr>
<td><strong>Safety Culture</strong></td>
<td>Professional leadership attitudes in a High Reliability Organization that manage potentially hazardous activities such that the risk to people and the environment is maintained as low as reasonably achievable, thereby ensuring the trust of all relevant stakeholders.</td>
</tr>
<tr>
<td><strong>Safety Culture</strong></td>
<td>An organization’s values and behaviors—modeled by its leaders and internalized by its members—that serve to make nuclear safety the overriding priority.” Unfortunately, not a true definition because what is being defined (nuclear safety) is in the definition (example) : “An organization’s values and behaviors—modeled by its leaders and internalized by its members—that serve to make ice cream sandwiches the overriding priority.”</td>
</tr>
<tr>
<td><strong>Safety Culture</strong></td>
<td>A human performance based safety system requiring maintenance and quality management like any other (e.g. electro-mechanical based) safety related system. NRC needs to include “Safety Culture” in the 10CFR50 Appendix B QA Topical Report so that operating organizations will dedicating the needed attention and resources to properly managing and maintaining organizational safety culture quality.</td>
</tr>
<tr>
<td><strong>Safety Culture</strong></td>
<td>The professional attitude of individuals in a High Reliability Organization that ensures potentially hazardous activities do not harm people or the environment.</td>
</tr>
</tbody>
</table>
## Glossary of Safety Culture Terms

| Safety Culture Quality Management (HRO) | Ensuring that safety culture remains ALARA (As Low As Reasonably Achievable) as a SOE contributing or causal factor. *Maintaining the quality of the safety culture is the general responsibility of the management team and the primary responsibility of the most senior manager.* |
| Safety Culture Quality Management (Nuclear Power Organization) | Ensuring that safety culture remains ALARA (As Low As Reasonably Achievable) as a SOE contributing or causal factor. *Maintaining the quality of the safety culture is the general responsibility of the management team and the primary responsibility of the most senior manager. In a nuclear power organization, it is the shared primary responsibility of the most senior site manager and the Chief Nuclear Officer (CNO).* |
| Safety Culture Quality Regulation (Nuclear Power) | Ensuring that safety culture remains ALARA (As Low As Reasonably Achievable) as a SOE contributing or causal factor by ensuring that the management team takes appropriate actions to maintain the trust of all stakeholders. *Safety Culture Quality Regulation is the primary responsibility of the government regulator NRC and is the shared general responsibility of the communitarian regulatory INPO and the policy setting organization NEI.* |
| Safety Culture (OSHA) | An ethical attitude that helps ensure construction and maintenance activities are performed without injury. |

*Schein quote 1* Leaders create culture. It may be argued that the most important thing that leaders do it to correct the culture when it is found to be misaligned.

*Schein quote 2* Culture change happens through clear articulation of new behavior geared to some new value. Without stating the behavior, you’re not accomplishing anything.

*Schein quote 3* The soft judgmental stuff that confronts people every day as reality tends not to be viewed as important or valid, yet what people do under those soft circumstances may make the difference as to whether you have a big incident or not.
Glossary of Safety Culture Terms

SCM  Safety Culture Management. Managing the component of SOE risk contributed by human performance such that it remains ALARA: As Low As Reasonably Achievable.

SCR  Safety Culture Regulation. Regulating the element of SOE risk contributed by human performance such that it remains ALARA: As Low As Reasonably Achievable.

SCW  Safety Culture Warrior. An extreme type of HEA employee that values safety above reputation or employment success. A SCW will continue to argue a position that the organization management team and (or) industry regulator do not support, and may view as unnecessary, unreasonable, or wasteful.

SCWE Safety Conscious Work Environment. An HRO business environment where employees trust that they will not be subject to HIRD for raising safety issues. In a true SCWE an employee exhibiting a reasonable pragmatic safety focus is appreciated and supported even when the focus exceeds minimal regulatory compliance.

SRFA  Safety Related Functional Area. An area within the organization responsible for fulfilling requirements of 10CFR50 Appendix B

Shooting the Messenger" (Wikipedia) Shooting the messenger” is a metaphor phrase used to describe the act of lashing out at the (blameless) bearer of bad news. To blame a problem on whoever reported it. To hold somebody accountable for a problem because he / she brought attention to it.

SWIM standard A pass / fail quality standard applied to SRFA managers. The standard that legislates (regulates) permissible behavior in a democratic society. If more than 2/3 of a workgroup view a managerial behavior as adverse to safety, leadership corrective actions are required.