HRO Safety Culture Definition

An Integrated Approach

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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."

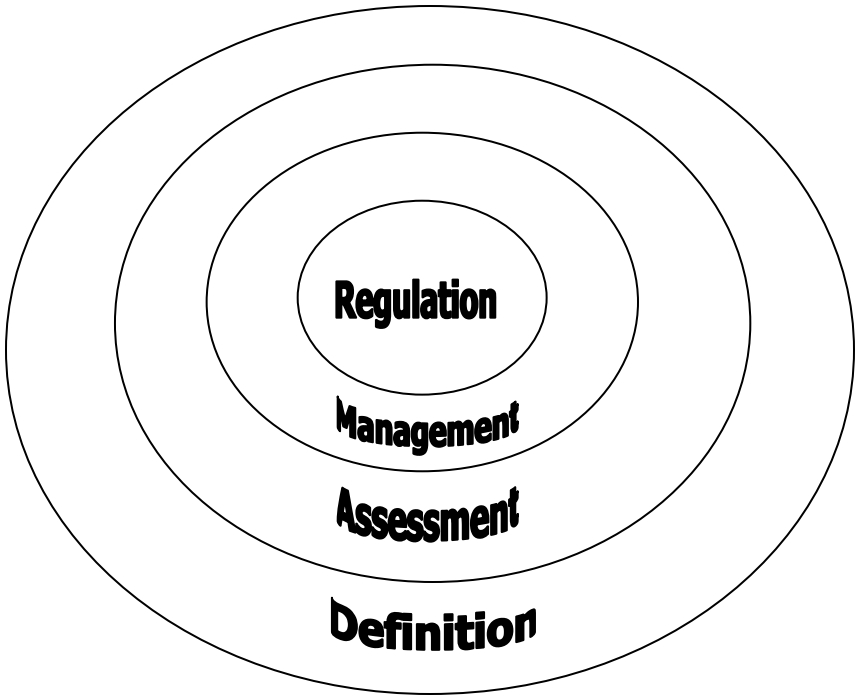
Language and Responsibilities
What is HRO Safety Culture (exactly)?

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”

Language and Responsibilities
Why Not Use Existing INPO Definition?

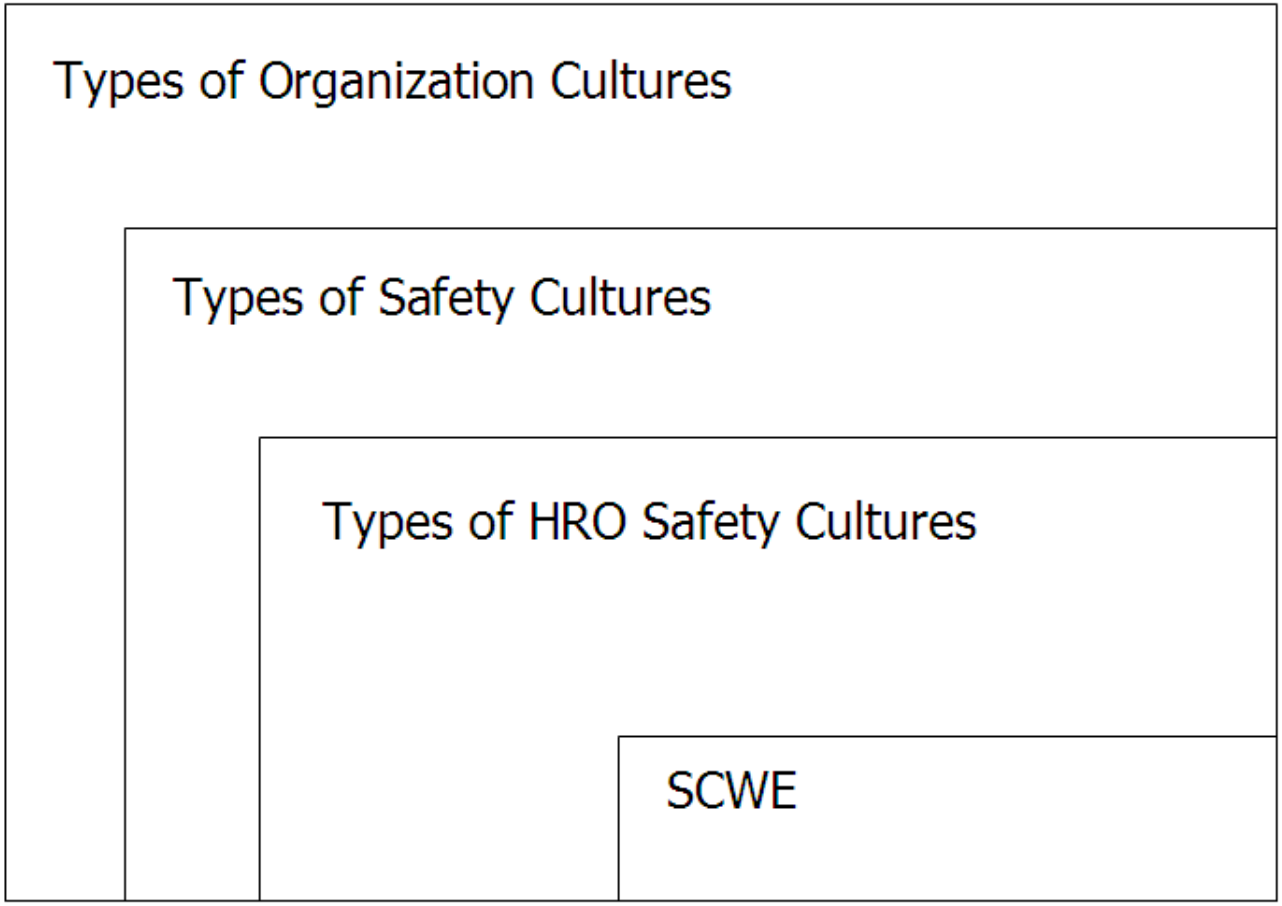
Generic Definition Any Kind of Culture
(Not specific to Nuclear Safety or HRO culture)

Example

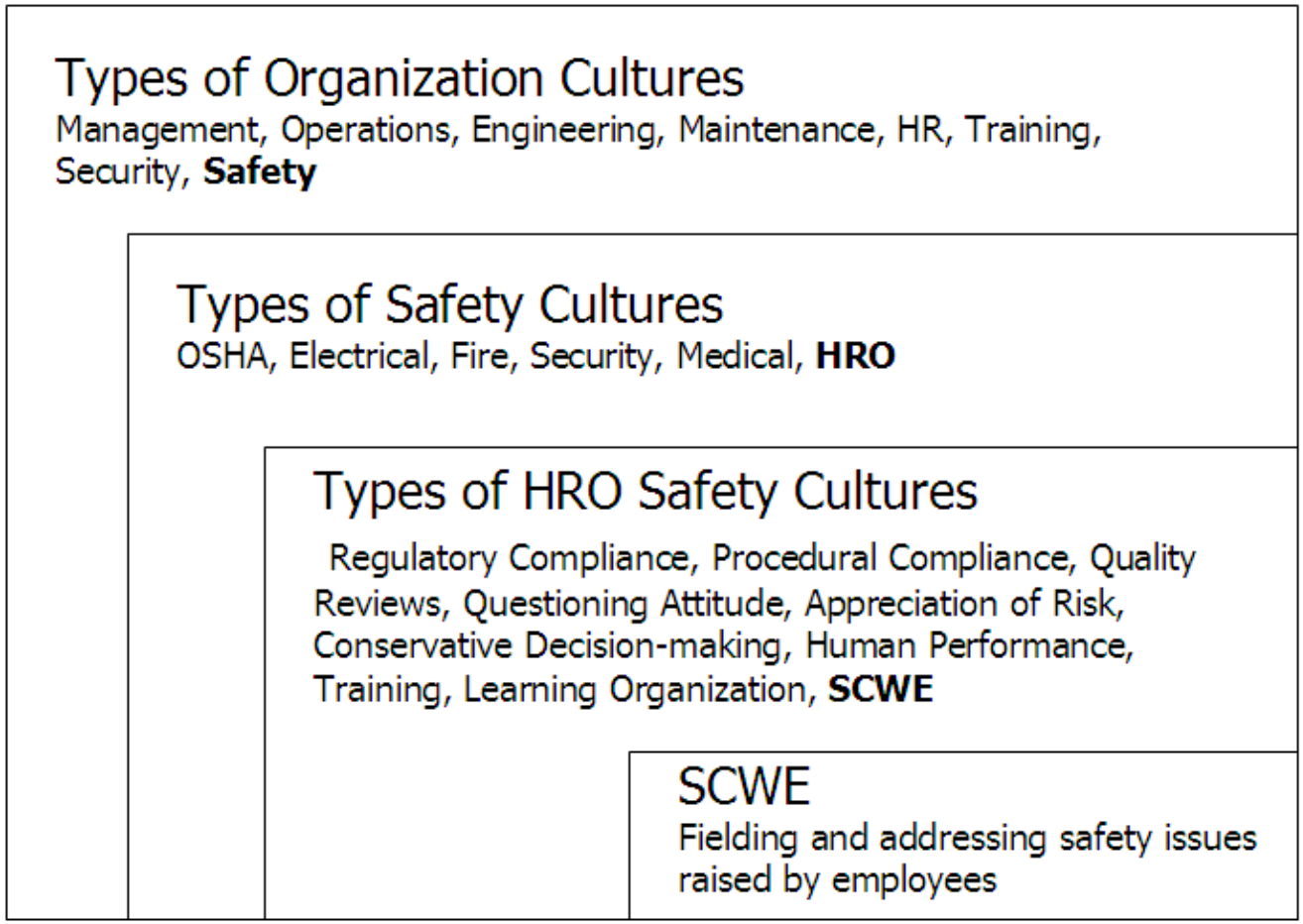
Nuclear Safety Culture
"An organization's values and behaviors—modeled by its leaders and internalized by its members—that serve to make nuclear safety the overriding priority."

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?



Language and Responsibilities
Why Not Use Proposed NRC Definition?



Language and Responsibilities

Why are Leaders Responsible for Culture?

Leadership Culture Nexus

Schein Leaders create the org culture, and if there are c 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

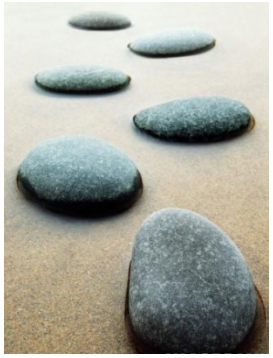
Marquardt There are only 2 ways to change culture, you can change leaders, or you can change leaders

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

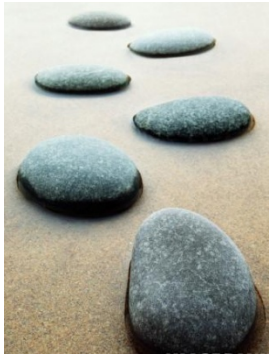
The Root Cause of Most Culture Events
Development of Cost Conscious Work Environments

INPO

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

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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

Leaders Create Culture
Safety Culture – the Central Focus of Leadership

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?"

Leaders Create Culture
Reestablishing a SCWE - Restoring Trust

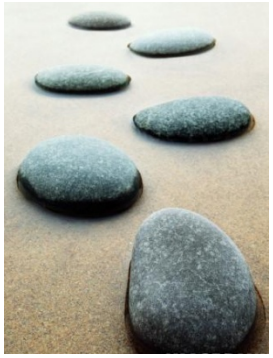
"Unprecedented" was …
how badly damaged the (stakeholder) trust relationship and how Leadership repaired it to the point where stakeholders universally felt it was (not just acceptable but) "robust".

Leaders Create Culture
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 service1." This goes well beyond the activities of the Nuclear Performance Assessment Department (NPAD)2. 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

Excellence Behaviors	Integrity Behaviors	Relationship Behaviors
Communicates and models values	Does the right thing (behaves ethically)	Listens carefully to suggestions
Clearly communicates expectations	Communicates openly and honestly	Welcoming and respectful
Focus is on value not cost	Makes conservative decisions	Promotes diversity, development
Ensures training, resources	Addresses issues promptly, properly	Does not under manage, over task
Good problem-solver and coach	Uses failures to learn, not punish	Compliments more than criticizes
Promotes open, deep org learning	Ensures appropriate accountability	Promotes work / life balance

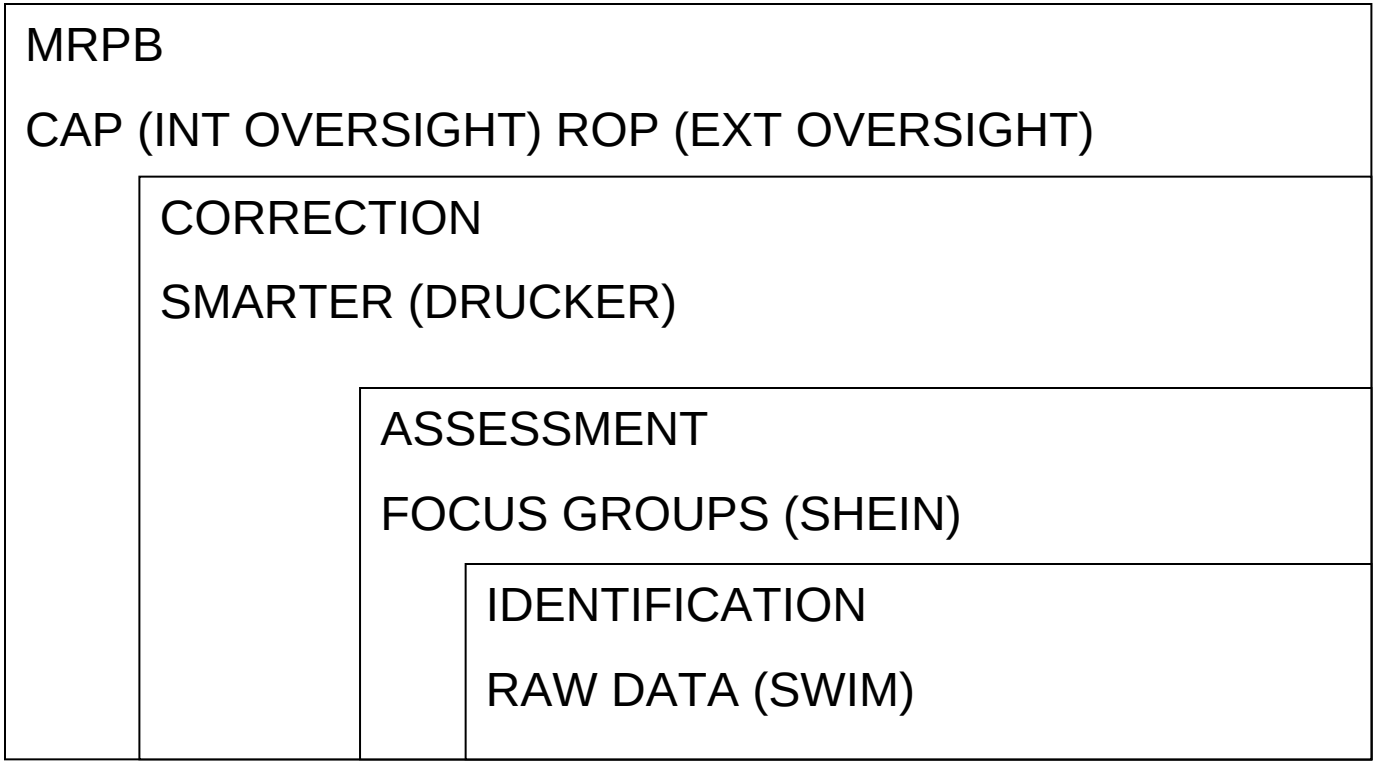
TRUST FORMULA

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]



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)

Excellence Behaviors	Integrity Behaviors	Relationship Behaviors
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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".

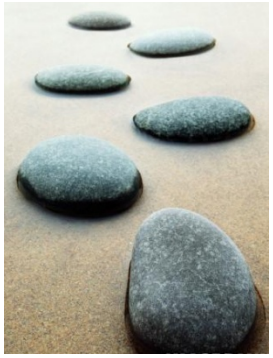
Learning to Assess Manage Regulate
How Do We Do an Objective **ROP** Assessment?

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).

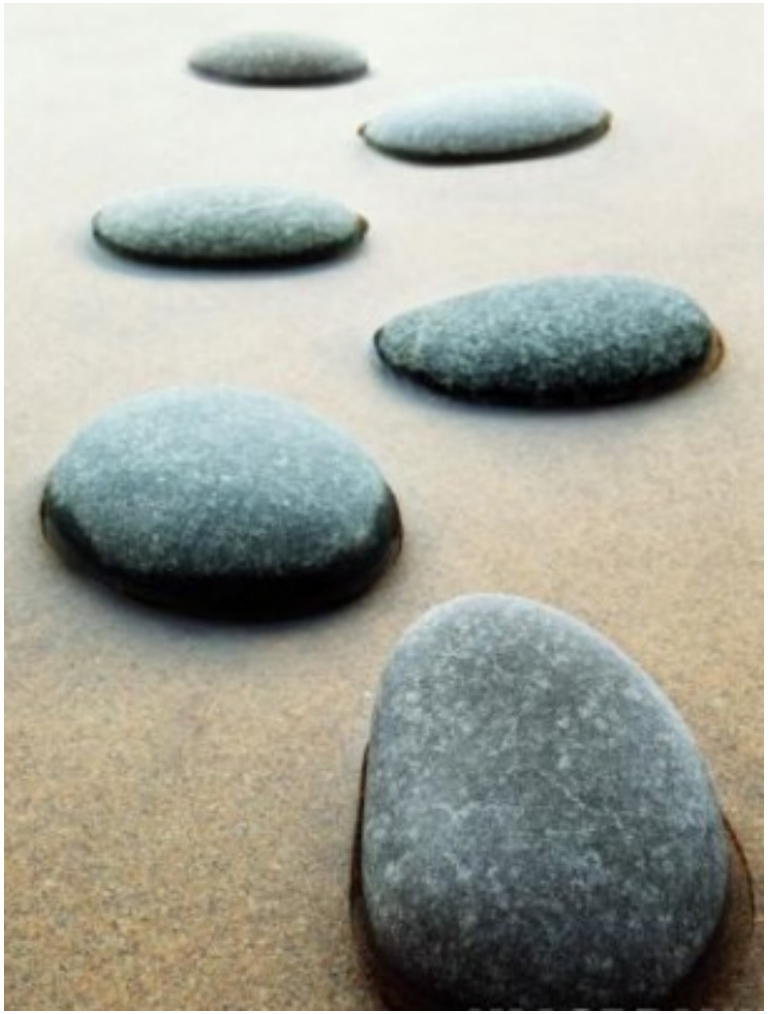
Example:

Site with 1,000 SRFA workers. SWIM results indicate a weak culture is affecting 200 SRFA workers, the MRPB number would be (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 heath 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?

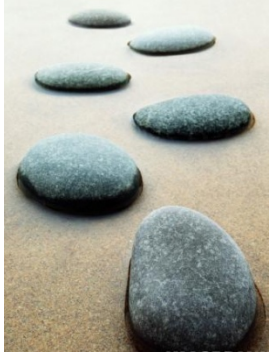
Ed Schein

Learning to Assess Manage Regulate
Comment on NRC Continuing to do “Same Stuff”

2002 ACRS Meeting

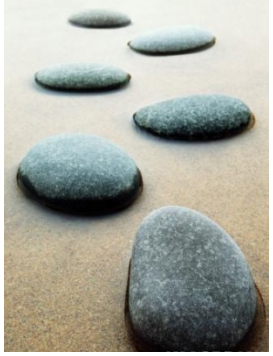
MR. ROSEN: I don't want to be here three years from now with another plant, XYZ plant, that's had a serious incident, maybe even an accident, whose root cause was the same kind of safety culture deficiencies that happened at Davis-Besse.
MR. APOSTOLAKIS: Yes, of course.
MR. ROSEN: And that we didn't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



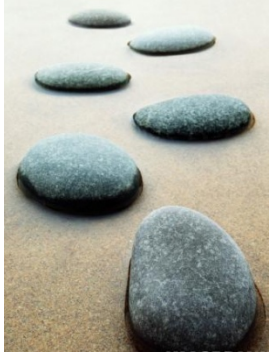
Glossary of Safety Culture Terms

ADRL	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.
ALARA (Safety Culture Management)	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).
CCA	Culture Corrective Action. An area of culture weakness vetted by facilitated workgroup discussions. A CCA provides actionable information for culture remediation to the SLT.
CCWE	Cost Conscious Work Environment. An environment where a strong cost focus is appreciated and a safety focus beyond minimal regulatory compliance is denigrated.
CFA	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.



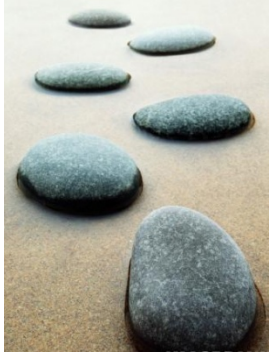
Glossary of Safety Culture Terms

Corcoran Quote 1	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 Oversight Department. In fact, it implies that QA is the way business is required to be done.
Davis Besse Root Cause – Failure of Internal Oversight	9/10/2002 FENOC Root Cause Analysis Report "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."
Degraded	Reduced in rank, reputation, esteem or value
DLIL attitude	**"**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).



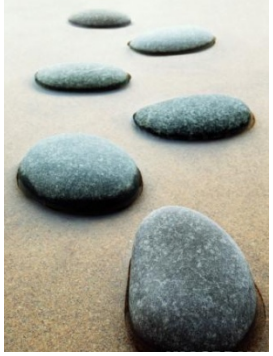
Glossary of Safety Culture Terms

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
DMDMR	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 INDUSTRYCONGRESSIONAL 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.



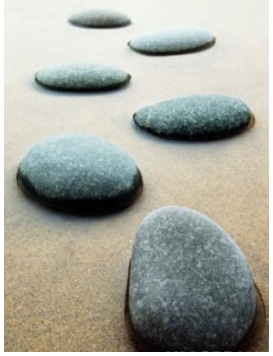
Glossary of Safety Culture Terms

FON	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).
Healthy Organization Culture	Organization culture where behavior aligns with the stated desired (espoused) values.
HPM	Highly Professional Manager. A manager in a HRO that ensures stakeholder trust by managing excellence and relationships with integrity over time.
HIRD	Harassment, Intimidation, Retaliation, Discrimination. Adverse actions typically taken against a HEA employee for engaging in a protected activity. The adverse action is typically taken by a LEM to encourage the employee to either stop the activity, or to leave the workgroup or company.
HRO	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.
INPO (Managing Defenses)	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.
Kings Afloat	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**"**.



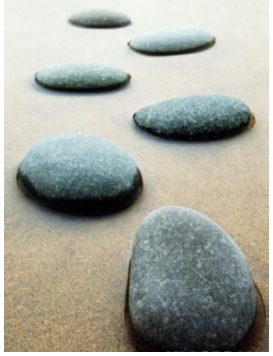
Glossary of Safety Culture Terms

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

NSE attitude	**"**Not Safe Enough**"** attitude. An employee (often HEW) attitude that indicates **"**I am more concerned with safety than cost**"**. If a SCWE environment has been established, promotion and advancement opportunities are increased by this attitude (decreased if a CCWE has been established).
NTP attitude	Not a Team Player. Manager attitude in a CCWE that an employee who raises safety concerns beyond what is required by regulators is **"**not a team player**"**. 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 **"**teamwork**"** and **"**communications**"**.
Professionalism (High Reliability Organization)	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.
Professionalism (Medical Organization)	From Roberts **"**The Essential Guide to Medical Staff Reappointment **"** 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.
Protected Activities	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.
Realistic Conservatism	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 "realistic conservatism," it is better able to make appropriate safety decisions and to better allocate resources to areas where they will have the greatest positive effect.



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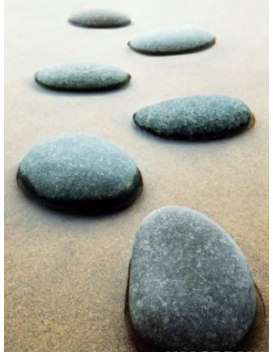
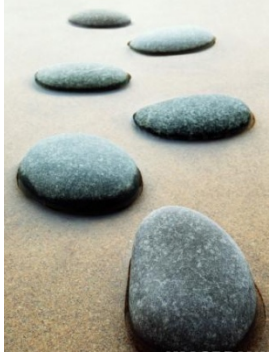
Regulatory Relief (Congressional Philosophy)	There is a debate in congress over whether the NRC should be able to impose requirements that are unquantifiable. Some feel legislation (to be effective) must force regulatory agencies to base regulatory decisions on costs, benefits, and calculated risks. 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.
Safety Culture (High Reliability Organization)	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.
Safety Culture (INPO definition)	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."
Safety Culture (Human Performance, Quality Management)	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.
Safety Culture (Individual)	The professional attitude of individuals in a High Reliability Organization that ensures potentially hazardous activities do not harm people or the environment.



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 metaphoric 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.