

Activities to improve safety culture in DOE facilities

EFCOG Meeting Handout

EFCOG/DOE ISMS Safety Culture Task Team
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1. INTRODUCTION

Contractors and DOE management are responsible for safe operation of DOE facilities and establishing and maintaining an effective ISMS. A safety culture will not improve without additional efforts by management. Therefore, management has responsibility and discretion in the way they manage a safety culture at a particular facility. As with variations in processes such as problem identification and resolution, the choice of tools and their usefulness will depend on several factors, including the size of the contractor and the complexity and hazards of work activities.

This document can be used either with or without the EFCOG resource document on assessing safety culture. An organization may assess itself and review this document for ideas on activities which could address issues identified in the assessment. This document could also be used without an assessment to target known areas of improvement. Attachment 1 contains a matrix which identifies safety culture attributes identified by The Team and examples of tools which can improve implementation of the attributes. The References contain useful information on a number of related tools.

Some of the practices discussed in this document may not be practicable or appropriate for every contractor or DOE organization, depending on the existing organizational maturity, work environment, size, complexity, and hazards. For example, some of the practices may not be applicable for organizations that have only a few employees or a very simple management structure. In such organizations, more informal practices to establish and maintain a strong safety culture may be appropriate. In addition, other practices not included in this document may be effective in establishing and maintaining a strong safety culture.

2. SENIOR MANAGEMENT COMMITMENT

Perhaps the most critical element in implementing a safety culture initiative at a DOE facility is DOE and contractor senior management commitment. Management involvement in developing the implementation plan for any safety culture initiative will promote buy-in and commitment. The implementation plan should identify the current state, the target improvements, and the selected improvement activities, along with schedules and responsibilities for implementation. Periodic meetings to discuss plan progress and lessons learned can be conducted by the Contractor. Attachment 2 and Reference 8 contain additional information on actions that can be taken to establish senior management commitment. While the quality of senior management commitment must be essential, the level of direct senior management effort for this activity can be minimal.

3. EXPECTATIONS IDENTIFIED AND COMMUNICATED

Expectations help employees and management know what is expected of them and helps build a strong safety culture. Along with senior management commitment, the creation and communication of expectations are one of the first things that should be done in improving safety culture. Example expectations based on ISMS M450.4-1 (Reference 9) ISMS guiding principles and supplemental safety culture elements are included in

Attachment 3. There is a moderate level of effort required for this activity. If organizational expectations have not been recently reviewed against elements of ISMS, this should be done, along with any communication and modifications to program documentation to reflect any needed revisions.

4. ISMS TRAINING

Initial ISMS safety culture related training for recently hired employees or recently promoted managers should be conducted as soon as practicable. Decisions regarding the timing and content of such training need to consider the complexity of the organization, the status of the safety culture at the facility, and the nature of the activities involved. Refresher training and subcontractor training should also be considered. Training considerations are included in Attachment 4 and Reference 8. Training development and presentation represents a significant commitment of time and resources. It is however essential that the organization designate some individuals to become champions and subject matter experts in culture related topics.

5. LINE MANAGEMENT TIME IN THE FIELD

The purpose of management time in the field programs is to improve performance by providing direct management observation and oversight of work activities. Many organizations use a formal management field time program which requires managers to spend time in the field observing and interacting with employees. Feedback is provided when appropriate. Programs like this can help reinforce expectations and improve communications between management and workers.

In the specific case of improving safety culture, management observations should reinforce the specific ISMS safety culture expectations identified by The Team. Observations should assess knowledge of workers, compliance with policies and procedures, identify and correct unsafe conditions/behaviors, promote two-way communication between management and the workers, build trust, and reinforce positive behaviors. Since this activity should be occurring in any organization, the addition of related safety culture considerations should involve minimal additional effort.

6. COACHING AND MENTORING

Many organizations use formal coaching and mentoring processes to reinforce the specific ISMS safety culture related focus areas and attributes identified by The Team. Properly conducted, these processes can increase communications and improve trust. The employee performance review process is an opportunity for managers and employees to:

- Focus on performance and development
- Provide specific feedback and coaching
- Discuss concerns and needs
- Plan for the coming year
- Enable employees to see how their work fits with the organization goals and ultimately adds value to the company as a whole.

The inclusion of safety culture considerations to these already existing processes should involve minimal effort.

7. BEHAVIOR CHANGE

There is a direct cause-and-effect relationship between a manager's actions and an employee's behavior because *behavior is motivated by its consequences*. There are several aspects of behavior change worth noting. Consequences, whether positive or negative, far more than training, directives, or threats, reinforce behavior. People tend to seek and do things they like and avoid things they do not like. This is a fundamental principle of human behavior. If people are to make a habit of applying human performance tools, then positive consequences must be associated with their behaviors. The primary purpose of a Behavior Based Safety (BBS) program is to improve safety performance by assisting individuals to understand and adopt safe work behaviors. This program is proactive and provides positive reinforcement of good behaviors and practices. Specific goals of BBS programs are:

- To prevent future accidents/injuries by reinforcing good safety behaviors among the workforce
- To help identify potential precursors to negative safety trends
- To reduce the number of accidents/injuries
- To reinforce the implementation of a healthy, active safety culture
- To improve productivity through better implementation of ISMS

Implementation of a behavior change process would take a moderate amount of effort such as program development costs, training costs, and resource commitment on the part of observers. Considerations for improving behaviors are included in Attachment 5. Reference 6 will provide additional information on BBS in the near future. Contractors that do not have safe behavior efforts underway should include BBS type efforts in the first half of CY 2009.

8. VOLUNTARY PROTECTION PROGRAM (VPP)

While not a requirement, implementation of VPP can help a facility with certain elements of safety culture implementation. VPP has been recognized as a positive contributor to safety culture improvements at a number of facilities. Implementing VPP in a facility would take a considerable amount of employee and management resources. To implement VPP at your facility, refer to the Reference 7.

9. SIX SIGMA LEARNING TOOLS

Companies equipped with Six Sigma programs may choose to use Six Sigma tools to both identify and improve Safety Culture issues within their organizations. The tools generally start with a process map of activities and behaviors that lead to an output that has been identified culturally as needing improvement. Value added and non-value added activities are identified on the process map. These inputs (X's) and outputs (Y's) are charted on an X/Y matrix to determine the critical X's that contribute to a satisfactory product (Y). When considering changes, managers can use the Failure Modes and Effects Analysis (FMEA) tool to measure current risk, and risk reduction with proposed cultural improvements in place. This then leads to defining metrics that can be tracked using statistical process control methods to measure the organization's response to cultural changes.

Additional Six Sigma tools that can be considered are Design for Six Sigma, and Value Stream Analysis. These are Six Sigma Black Belt tools that are used to provide well designed processes that can provide measurable structure in culture improvements.

10. PROBLEM IDENTIFICATION PROCESS

An effective facility problem identification and resolution process is a key component to establishing a healthy safety culture. This process is the normal day to day process used by workers and management to identify and resolve issues. A good process helps support effective worker involvement in problem identification and resolution, and effective management involvement and support. Considerations for an effective process are included in Reference 8 and Attachment 6. Implementation of a strong problem identification process would take a moderate amount of effort.

11. HUMAN PERFORMANCE IMPROVEMENT (HPI)

Implementation of HPI can help a broader safety culture improvement effort. HPI is an organizational systems approach that well complements behavioral safety programs and focused on organizational factors that can positively or negatively affect human performance. Leadership that supports HPI principles will be aligned with the broader vision of implementing an effective ISMS safety culture.

A critical element of a healthy safety culture is a just culture. A just culture recognizes the distinction between errors and willful violations. Errors are simply part of being human; these are unintentional acts, often called mistakes, to which we are all subject. Willful violations, on the other hand, are acts that intentionally contravene established practices or requirements. In a just culture, line managers demonstrate an understanding that humans are fallible and when mistakes are made, the organization seeks first to learn rather than to blame. In a just culture employees are more likely to report errors, near-misses, and error-likely situations; behaviors that are essential to help the organization learn and improve. Open communication and reporting helps assure minor issues are being evaluated and addressed before a consequential event occurs. If a just culture does not exist in an organization, continuous improvement cannot truly occur since organizational “learning” is only reactive, not proactive.

A process to help determine the culpability level of an individual in response to events or near misses triggered by human error can help build a just culture. When used in conjunction with the organization’s accountability policy, the process supports the fair and consistent application of disciplinary outcomes across all departments and work groups. This helps to promote trust and encourage workers to raise issues. An organization’s accountability policy or procedure could also be revised to include key aspects of the diagram.

Additional resources on HPI are included in References 4, 5, and 6, and Attachment 7. HPI can be implemented in full or in part. Considerable resources may be needed to implement HPI such as training and process change costs.

12. HUMAN RESOURCE PROCESSES

A number of Human Resources related processes and activities can help promote safety culture. Examples are hiring, promotion, and retention processes which consider compatibility with safety culture attributes. Staff development activities which take into account safety culture attributes is another example. Management involvement in disciplinary processes can provide an additional layer of defense against undesirable employment actions. An effective way for management to prevent actual or perceived retaliatory actions by their staff is to review proposed employment actions on an as-needed basis before the actions are taken to determine whether any of the factors of retaliation are known to be present. In addition, facility senior management may positively impact the safety culture by ensuring that programs and processes involving changes to employment conditions (e.g., disciplinary policies, reductions-in-force plans) are well-defined, defensible, and communicated to the workforce before implementation. Considerations are included in Attachment 8 and Reference 8.

REFERENCES

1. IAEA TECDOC-1321 entitled “Self-assessment of safety culture in nuclear installations”
2. IAEA Key Practical Issues in Strengthening Safety Culture (2002), INSAG-15
3. IAEA TECDOC-1329 entitled “Safety culture in nuclear installations” Guidance for use in the enhancement of safety culture
4. Hanford HPI Lessons Learned (April 2007)
<http://www.hanford.gov/orp/uploadfiles/HPI%20LL.pdf>
5. INPO Human Performance Fundamentals Course Reference Manual
6. HPI Implementation Tools Project Website
http://efcog.org/wg/ism_pmi/ism_pmi_hpi/EFCOG_DOE_HPI_Tools.htm
7. DOE VPP Website <http://www.hss.energy.gov/healthsafety/wsha/vpp/>
8. NRC REGULATORY ISSUE SUMMARY 2005-18, Guidance for Establishing and Maintaining a Safety Conscious Work Environment
9. DOE M450.4-1, Integrated Safety Management System Manual

Attachment 1
ISMS SAFETY CULTURE ATTRIBUTES AND TOOLS MATRIX

Attributes	Example tools to improve safety culture included in this document
Organizational Learning	
Reporting errors & problems	<ul style="list-style-type: none"> • Problem Identification Process • Clear Expectations • HPI • Behavior Change • Senior Management Involvement in Employment Actions
Questioning Attitude	<ul style="list-style-type: none"> • Clear Expectation • HPI • Safety Culture Training • Behavior Change
Effective resolution of reported problems	<ul style="list-style-type: none"> • Problem Identification Process • HPI
Performance monitoring through multiple means	<ul style="list-style-type: none"> • (Refer to EFCOG Resource Document on Assessment of Safety Culture)
Use of operational experience	<ul style="list-style-type: none"> • (Benchmarking)
Trust	<ul style="list-style-type: none"> • Safety Culture Training • HPI • Clear Expectations • VPP • Senior Management Commitment • Culpability Decision Tree
Employee/Worker Engagement	
Personal commitment to everyone's safety	<ul style="list-style-type: none"> • VPP • Clear Expectations • Safety Culture Training • Behavior Change
Teamwork and mutual respect	<ul style="list-style-type: none"> • Safety Culture Training • Clear Expectations • Employee Recognition
Participation in work planning and improvement	<ul style="list-style-type: none"> • Clear expectations • Senior Management Commitment • VPP
Mindful of hazards and controls	<ul style="list-style-type: none"> • VPP • HPI
Leadership	
Clear expectations and accountability	<ul style="list-style-type: none"> • Clear Expectations

Management engagement and time in field	<ul style="list-style-type: none"> ● VPP ● Clear Expectations ● Safety Culture Training ● Senior Management Commitment ● Behavior Change
Open communication and fostering an environment free from retribution	<ul style="list-style-type: none"> ● Safety Culture Training ● Clear Expectations ● HPI ● VPP ● Senior Management Commitment
Demonstrated safety leadership	<ul style="list-style-type: none"> ● Clear expectations ● Senior Management Commitment ● VPP
Staff recruitment, selection, retention, & development	<ul style="list-style-type: none"> ● Safety Culture Training ● Coaching and Mentoring (tie meeting expectations to promotion/reviews)
Risk informed, conservative decision making	<ul style="list-style-type: none"> ● Clear Expectations ● Safety Culture Training ● Senior Management Commitment ● Behavior Change

Attachment 2

SENIOR MANAGEMENT COMMITMENT

An “All Employee Message” can be issued by the Contractor president announcing their commitment to the initiative as an enhancement to ISMS.

Initial safety culture training sessions kicked off by contractor senior management can be influential in providing one vision and message.

A management policy statement may help establish a strong safety culture and communicate senior management’s expectations for maintaining it. The policy statement should:

- Identify applicability to employees and management
- Assert that it is everyone’s responsibility to promptly raise concerns
- Make clear that retaliation for doing so will not be tolerated
- Include a statement that, to the extent appropriate, employees are allowed and encouraged to use work hours to report concerns for retaliation by supervisors, managers, or peers
- Expectations for management behavior that fosters employee confidence in raising concerns
- Various avenues available for raising concerns
- The right of employees to raise concerns externally
- A commitment to provide training

A management champion for each of the three major focus areas (leadership, worker involvement, and continuous improvement) is recommended.

Attachment 3
EXAMPLE ISMS SAFETY CULTURE RELATED EXPECTATIONS

Leadership

- Line managers are skilled in responding to employee questions in an open, honest manner.
- Managers encourage and appreciate the reporting of safety issues and errors.
- Managers encourage a vigorous questioning attitude toward safety, and constructive dialogues and discussions on safety matters.
- The organization actively and systematically monitors performance through multiple means, including leader walk-arounds, issue reporting, performance indicators, trend analysis, benchmarking, industry experience reviews, self-assessments, and performance assessments.
- Line managers periodically take steps to reinforce safety, including personal visits and walkthroughs to verify that their expectations are being met.
- Line managers support and reinforce conservative decisions based on available information and risks.
- Leaders support a variety of methods for personnel to raise safety issues, without fear of retribution.
- Leaders value and practice continuous learning
- Line managers reinforce perishable values of trust, credibility, and attentiveness.
- Line managers demonstrate an understanding that humans are fallible and when mistakes are made, the organization seeks first to learn as opposed to blame.
- Leaders hold personnel to high standards of both technical understanding and detailed task-oriented performance based on formality and discipline.
- Line managers maintain a strong focus on the safe conduct of work activities.
- Managers are the leading advocates of safety and demonstrate their commitment in both word and action.
- Line managers are in close contact with the front-line; they pay attention to real-time operational information.
- Personnel at all levels of the organization are held accountable for shortfalls in meeting standards and expectations related to fulfilling safety responsibilities.
- Managers set an example for safety through their personal commitment to continuous learning and by their direct involvement in high-quality training that consistently reinforces expected worker behaviors.
- Organizational leaders place a high personal priority and time commitment on recruiting, selecting, and retaining an excellent technical staff.

Employee/Worker Engagement

- Individuals (or all employees) understand and demonstrate responsibility and ownership for safety.
- Individuals are actively involved in identification, planning, and improvement of work and work practices

- Individuals identify, understand, and control work hazards to prevent or mitigate accidents, with particular attention to high consequence events with unacceptable consequences.
- Individuals work together as a team towards common goals to accomplish the company's mission treating each other with dignity and respect (WRPS)
- Individuals support one another through both awareness of each other's actions and constructive feedback when necessary.
- Individuals hold each other accountable for shortfalls in meeting standards and expectations related to fulfilling safety responsibilities.
- Individuals foster a high level of trust by meeting commitments and practicing open communication.
- Individuals meet commitments to the highest standards of safety and quality, on or ahead of schedule, within budget (WRPS)
- Individuals follow approved procedures
- Individuals consistently maintain equipment so that it meets design requirements.
- Individuals use consensus industry codes and standards, where available and applicable, for design, construction, operating, maintenance, and decommissioning activities to protect workers, the public, and the environment.
- Individuals make systematic, rigorous, and informed decisions that support safe, reliable operations.
- Individuals take conservative actions when faced with unexpected or uncertain conditions.
- Individuals are intolerant of conditions or behaviors that have the potential to reduce operating or design margins
- Individuals thoroughly investigated, promptly mitigate, and periodically analyze anomalies in the aggregate.
- Individuals closest to the operational upset are empowered to make important decisions, and are held accountable justly.

Organizational Learning

- Mindful of the potential impact of equipment and process failures; sensitive to the potential of faulty assumptions and errors, and demonstrate constructive skepticism.
- Stop unsafe work or work during unexpected conditions.
- Promptly raise questions, concerns, errors and incidents, safe from reprisal using avenue of choice
- Prove work activities are safe before proceeding, rather than proving them unsafe before halting.
- Offer innovative ideas to improve performance and to solve problems.
- Use prevention and mitigation measures to preclude errors from occurring or propagating.
- Use of both internal and external operating experience is highly valued, and the capacity to learn from operating experience is well developed.
- Maintain awareness of safe conduct of work activities and key performance indicators related to safe work accomplishment, watch carefully for adverse

trends or indications, and take prompt action to understand adverse trends and anomalies.

- Actively and systematically monitors performance through multiple means, including leader walk-arounds, issue reporting, performance indicators, trend analysis, benchmarking, industry experience reviews, self-assessments, and performance assessments.
- The organization values and practices continuous learning, and requires employees to participate in recurrent and relevant training and encourages educational experiences to improve knowledge, skills, and abilities.
- Organizational leaders place a high personal priority and time commitment on recruiting, selecting, and retaining an excellent staff.

Attachment 4

ISMS SAFETY CULTURE TRAINING

ISMS training helps reinforce the principles in the policy and expectations. Some primary topics to consider including in this training are applicable laws, regulations, and policies underlying safety culture related expectations. To effectively communicate these concepts to the workforce, organizations should consider including the following topics in the training:

- Protected activity
- Adverse action
- Retaliation
- Consequences for deviations from applicable laws, regulations, and policies underlying these expectations
- Appropriate gateways for employees and contractors to identify concerns (manager, quality assurance programs, corrective action programs, appeal processes, alternative processes for raising concerns such as an employee concerns program or an ombudsman program, DOE, and DOL)
- A description of the programs and processes, and the role of the manager in each program or process
- Effective management behaviors to establish and maintain a strong safety culture at contractor facilities:
- An “open-door” policy in the office and make themselves available in the field
- Aware of employees’ potential reluctance to raise concerns
- Understand the importance of identity protection
- Good basic listening skills, seek input and express appreciation of employees who raise concerns
- Use various media instruments to communicate these principles
- Timeliness goals for responding to concerns, commensurate with their safety significance, and should consider providing periodic updates to the individuals who identified the concerns.
- Evaluate the effectiveness of responses to individuals’ concerns to determine whether the response adequately addressed the concerns

Managers should be trained to:

- Identify situations that make workers more receptive to raising concerns
- Identify actions to prevent a chilled environment
- Be available, receptive, sensitive, and responsive to promote employee confidence in identifying and resolving concerns. (Managers who have succeeded in this area may consider training or mentoring other managers in an effort to duplicate their success.)
- Recognize expectations for employees’ behavior.
- Use good communication skills

Refresher training for existing staff should be conducted periodically. Refresher training for employees and managers should review key points from the initial training and include lessons learned, as appropriate, from successes and/or problem areas.

Subcontractor training can be done either by the subcontractor or the prime contractor. Subcontractor training should consider the same elements as with the training given to prime contractor employees. Conducting training during business hours is one way the management can emphasize the importance of ISMS and safety culture.

Attachment 5 BEHAVIOR CHANGE

Managers and leaders need to positively reinforce individuals who obtain results through safe behaviors. Individual behaviors which cut corners to get jobs done on schedule and under budget at the expense of quality and safety should be addressed. Consequences either keep the behavior going or stop it in the long term. Leaders should take time to understand and learn how to use reinforcement to promote targeted behaviors.

All behavior that is occurring in the facility now is the result of consequences that are also occurring now. Similarly, the organization is perfectly attuned to get the performance it is getting, right now. All behavior is reinforced. If at-risk behavior is common, it is because management has not made a difference with appropriate negative consequences. Behavior has four basic consequences. These consequences can be used to get the desired performance by targeting specific behaviors:

- Positive Reinforcement – “Get something you want” enhances the probability the preferred behavior will recur and maximizes performance. This optimizes use of discretionary effort by the individual.
- Negative Reinforcement – “Avoid something you don’t want” enhances the probability the preferred behavior will recur, but only to meet the minimum standard.
Note: Consequences that cause behavior to either increase or continue at a high standard are known as “reinforcers.”
- Punishment – “Get something you don’t want” reduces the probability undesired behavior will recur if unwanted consequences are consistently coupled with the behavior. Punishment may also involve “losing something you don’t want to lose,” a penalty. Sometimes this is necessary to get the new expectation started for an individual. However, it should not be used for the long term.
- Extinction – “Don’t get something you want” reduces the probability undesired behavior recurs, since nothing happens when that behavior occurs. Usually, the behavior eventually disappears after several repeated attempts.

Recognition considerations include:

- Recognizing employees for identifying and helping resolve concerns can be an effective practice to encourage individuals to raise issues.
- Care should be taken to ensure that recognizing employees for raising concerns does not inadvertently discourage reporting concerns (some employees may not want recognition).
- While it is important to hold employees accountable for their errors, actions against personnel who self-report errors can, in some

circumstances, discourage employees from raising concerns, near-misses, etc.

- Management should consider treating self-identification and prompt, effective corrective actions as mitigating circumstances when addressing personnel matters involving self-identified errors.

Attachment 6

PROBLEM IDENTIFICATION PROCESS

Processes may help employees promptly identify and notify management of concerns such as:

- Processes that are accessible and user-friendly may make it easier for employees to raise concerns. A corrective action program which uses paper forms and/or terminals conveniently placed throughout the facility may further ensure prompt notification of concerns.
- Effective communication between affected departments which ensures the sharing of information so that the potential impact of the identified concerns can be appropriately assessed.
- Safety should be a primary factor in prioritizing concerns and in determining the breadth and depth of the evaluation. A screening process which includes a review for operability and reportability, depending on the types of issues raised at a particular facility.
- Processes should be in place to ensure that appropriate actions are taken in response to all concerns raised.
- For safety-significant issues, the cause evaluation process should identify the root and contributing causes of the issue as well as the extent of the condition.
- Timely feedback should be provided during the concern resolution process.
- The individual responsible for resolving the concern may need to discuss the concern with the employee raising the concern in order to understand the issue and its safety significance.
- Additional feedback may be necessary during the evaluation when it is apparent that resolution may take longer than anticipated.
- When the evaluation is complete, it may be beneficial in some organizations to follow up with the concerned employee to share proposed actions to address the issue; however, privacy considerations or other organizational factors may make it inappropriate to share some or all of the information with the concerned employee.
- The most effective feedback process is one that is flexible enough to permit a concerned employee who wants anonymity to obtain feedback.

Attachment 7

HUMAN PERFORMANCE IMPROVEMENT (HPI)

HPI related safety culture related attributes are included in ISMS already. Example attributes that promote a healthy safety culture related to The Team's Focus Areas include:

- Recognize & promote HPI concepts of identifying error-likely situations & strengthening defenses
- Focus on lessons learned rather than absolute number of errors
- Foster a learning environment
- Recognize human potential for error
- Trust
- Respect for the individual
- Zero tolerance for harassment and retaliation
- Zero tolerance for intentional violations

In most organizations workers face a constant balancing act between production and prevention. Leaders have the primary responsibility to help workers keep safety foremost and must be vigilant to keep operations, the environment, and personnel safe. Well-informed leadership at all levels of the organization will ensure that the vision, values, and beliefs (prevention centered attributes) do not conflict with the facility mission, goals, and processes (production centered attributes). Consistency and alignment promote both production and prevention behaviors—together generating the desired long-term results.

Production behaviors tend to naturally take precedence over prevention behaviors unless there is a strong safety culture—nurtured by strong leadership. Both production and prevention behaviors are necessary for long-term success. But managers err when they *assume* people will be safe. Safety and prevention behaviors do not just happen. They are value-driven, and people may not choose the conservative approach because of the stronger production focus of their immediate supervision or work group.

A robust safety culture requires aggressive leadership that emphasizes the principles and attributes of a strong safety culture. Leadership is not optional. Leaders act to influence both individual and organizational performance in order to achieve high levels of facility safety and performance through the following practices:

1. Facilitate open communication
2. Treat people fairly
3. Promote teamwork
4. Reinforce desired behaviors
5. Eliminate latent organizational weaknesses
6. Value the prevention of events and management of errors

Employee errors can have a detrimental effect on safety and efforts should be made to reduce the frequency and significance of errors. An environment that is conducive to the self-reporting of errors will allow such errors to be identified more quickly and can reduce the potential significance of some errors. One element of HPI to improve reporting of issues is to establish a “just” culture in an organization. The ultimate purpose of a just culture is to establish an environment where people raise low level issues to management where the organization can learn and improve from these issues minimizing the chance for events or greater consequence. Individual behaviors can influence just culture. Positive recognition for self reporting errors can improve the likelihood of reporting, and ultimately the frequency and significance of errors.

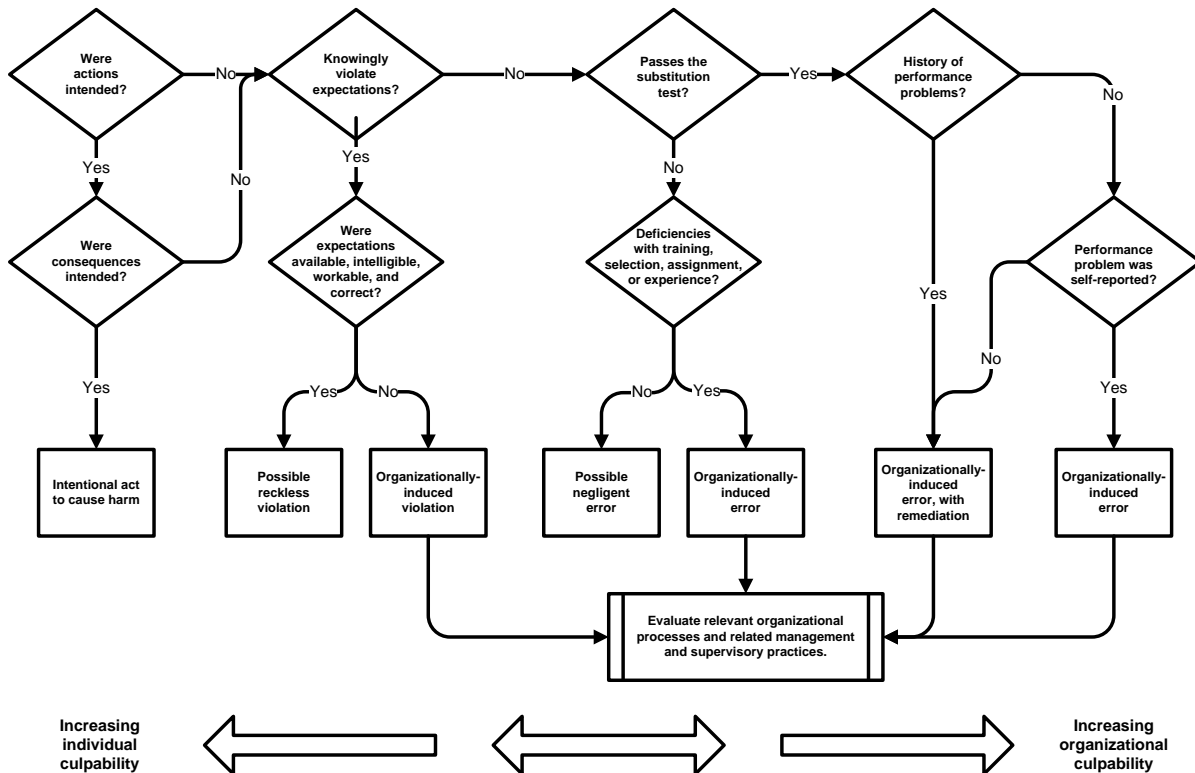
When an event is initiated by an honest mistake, the entire system that supports the performance in question should be evaluated. Events triggered by human error are often symptomatic of a system failure. Instead of asking how the individual failed the organization, the question “how did the organization fail the individual?” would be more appropriate. In addition to the individual, what or who could have prevented the event? What flaws or oversights in work processes, policies, or procedures contributed, promoted, or allowed the error and event to occur? Because the majority of the causes of events originate in the system of controls, processes, and values established by the management team, management’s first reaction to events should be to look within the organization.

The Foresight Test asks the question: “Did the individual knowingly engage in behavior that the average individual in the work group would recognize as being likely to increase the probability of making a safety-critical error?” If the individual’s peers respond that they would have recognized the action as promoting an error, then it is likely the individual in question should also have recognized the same thing. If the peers failed to see the connection between the action taken and increased risk, then it is reasonable to assume that the individual also did not see the connection. In any one of the following situations, however, the answer to this question is likely ‘yes’ and as such is indicative of culpability

- Performing work under the influence of a drug or substance known to impair performance
- Clowning around while driving a towing vehicle or forklift truck or while handling other potentially damaging equipment.
- Becoming excessively fatigued as a consequence of working a double shift.
- Taking unwarranted short cuts like signing off on jobs before they are completed
- Using tools, equipment or parts known to be sub-standard or inappropriate.

The Substitution Test involves substituting the individual concerned in the event with other individuals who do the same kind of work and who have comparable training and experience. Then the question is asked. “In light of how events unfolded and were perceived by those involved in real time, is it likely that this new individual would have

behaved any differently?” If the answer repeatedly comes back from the selected peers ‘probably not’ then apportioning blame has no place here and would likely obscure the underlying systemic deficiencies. A useful addition of the substitution test is to ask of 3-5 of the erring individual’s peers the following: ‘Given the circumstances that prevailed at the time, could you be sure that you would not have committed the same or a similar type of unsafe act?’ Again, if the response is ‘probably not’ then blame is very likely to be inappropriate. It is a ‘blameless’ error. The substitution test is often used in conjunction with the Culpability Decision tree.



Culpability Decision Tree. Adapted from INPO.

Attachment 8

INVOLVEMENT OF SENIOR MANAGEMENT IN EMPLOYMENT ACTIONS

Review for the presence of retaliation should consider the following factors:

- Has the individual against whom the action is being taken engaged in a *protected activity*?
- Is an adverse employment action being proposed?
- Does the contractor know about the protected activity? Such knowledge can be attributed to someone other than the individual's director supervisor.
- Is there evidence that the adverse action is being proposed because of the protected activity? That is, is there a relationship between the adverse action and the protected activity?

If such reviews of employment actions are implemented, management can use them to determine whether actions are well-founded and non-retaliatory. Other factors to consider in such a review include:

- Whether the proposed action comports with normal practice within the limits allowed by the defined process and is consistent with previous actions.
- Whether the supervisor requesting the action exhibits any sign of unnecessary urgency; and
- Whether the employee's prior performance assessments and the proposed action are consistent and, if not, whether any inconsistencies are justified and documented.

If such reviews are implemented, an assessment should be done to determine what effect the employment action may have on the work environment. If management determines that the action, despite its legitimacy, could be perceived as retaliatory by the workforce, mitigating actions should be considered to minimize potential chilling effects on raising safety issues. Such mitigating actions may include:

- Using holding periods during which the proposed employment action is held in abeyance while further evaluations are completed
- Communicating with the workforce about the action being taken, with appropriate consideration of privacy rights
- Reiterating the management policy
- Explaining the action to the affected employee or employees and clearly articulating the non-retaliatory basis for the action.

After an employment action is taken, management can initiate a review of the facts and, if warranted, reconsider the action that was taken. If retaliation is alleged, management should assure that the appropriate level of management is involved in efforts to minimize a potential chilling effect on the workforce's willingness to raise issues.