

Nuclear Safety Culture Common Language

3rd Public Workshop

November 15-16, 2012

Workshop Purpose

- Continue to refine the safety culture common language for power reactors by reviewing and agreeing on examples for each safety culture attribute.
 - Do the examples clearly describe the attribute?
 - Do the examples minimize overlap between attributes?

Nuclear Safety Culture Common Language

<ul style="list-style-type: none"> LA.1 Resources LA.2 Field Presence LA.3 Incentives, Sanctions & Rewards LA.4 Strategic Commitment to Safety LA.5 Change Management LA.6 Roles, Responsibilities & Authorities LA.7 Constant Examination LA.8 Leader Behaviors 	<ul style="list-style-type: none"> PI.1 Identification PI.2 Evaluation PI.3 Resolution PI.4 Trending 	<ul style="list-style-type: none"> PA.1 Standards PA.2 Job Ownership PA.3 Teamwork
Leadership Safety Values & Actions	Problem Identification & Resolution	Personal Accountability
LA	PI	PA

<ul style="list-style-type: none"> WP.1 Work Management WP.2 Design Margins WP.3 Documentation WP.4 Procedure Adherence 	<ul style="list-style-type: none"> CL.1 Operating Experience CL.2 Self Assessment CL.3 Benchmarking CL.4 Training 	<ul style="list-style-type: none"> RC.1 SCWE Policy RC.2 Alternative Process for Raising Concerns 	<ul style="list-style-type: none"> SC.1 Work Process Communications SC.2 Basis for Decisions SC.3 Free Flow of Information SC.4 Expectations
Work Processes	Continuous Learning	Environment for Raising Concerns	Effective Safety Communication
WP	CL	RC	SC

<ul style="list-style-type: none"> WE.1 Respect is Evident WE.2 Opinions are Valued WE.3 High Level of Trust WE.4 Conflict Resolution 	<ul style="list-style-type: none"> QA.1 Nuclear is Recognized as Special and Unique QA.2 Challenge the Unknown QA.3 Challenge Assumptions QA.4 Avoid Complacency 	<ul style="list-style-type: none"> DM.1 Consistent Process DM.2 Conservative Bias DM.3 Accountability for Decisions
Respectful Work Environment	Questioning Attitude	Decision Making
WE	QA	DM

Leadership Safety Values and Actions (LA)

Leaders demonstrate a commitment to safety in their decisions and behaviors.

- LA.1 Resources
- LA.2 Field Presence
- LA.3 Incentives, Sanctions & Rewards
- LA.4 Strategic Commitment to Safety
- LA.5 Change Management
- LA.6 Roles, Responsibilities & Authorities
- LA.7 Constant Examination
- LA.8 Leader Behaviors

**Leadership Safety Values
& Actions**

LA

Leadership Safety Values and Actions (LA)

LA.1 Resources: Leaders ensure that personnel, equipment, procedures, and other resources are available and adequate to support nuclear safety.

Proposed Examples

- Management maintains sufficient staffing levels to ensure work is performed safely.
- There are sufficient qualified personnel to maintain work hours within working hour guidelines.
- Facilities are available and regularly maintained, including physical improvements, simulator fidelity and emergency facilities.
- Tools, equipment, and resource materials are available to support successful work performance, including risk management tools and emergency equipment.
- Executives and senior managers ensure sufficient corporate resources are allocated to the nuclear organization for short- and long-term safe and reliable operation.
- Executives and senior managers ensure a rigorous evaluation of the nuclear safety implications of non-approved budget items.
- Executives and senior managers clearly explain and communicate the nuclear safety implications of resource allocation decisions.
- Managers personally understand the safety significance of initiatives and projects that are under review for resource allocation and budget decisions.

Leadership Safety Values and Actions (LA)

LA.2 Field Presence: Leaders are commonly seen in working areas of the plant observing, coaching, and reinforcing standards and expectations. Deviations from standards and expectations are corrected promptly.

Proposed Examples

- Management ensures supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported.
- Management oversight of work activities includes leaders from all levels in the organization.
- Management reinforces strong nuclear safety in the field.
- Managers and supervisors practice visible leadership in the field and during safety significant evolutions by placing “eyes on the problem,” coaching, mentoring, reinforcing standards and reinforcing positive decision making practices and behaviors.
- When supervisors and managers are “in the field,” they perform quality observations.
- Managers and supervisors discuss their observations in detail with the group they observed on completion of an observation.
- Supervisors and managers provide useful feedback about how to improve individual performance.
- Supervisors visit job sites to validate that standards and expectations are being followed.

Leadership Safety Values and Actions (LA)

LA.3 Incentives, Sanctions and Rewards: Leaders ensure incentives, sanctions, and rewards are aligned with nuclear safety policies and reinforce behaviors and outcomes which reflect safety as the overriding priority.

Proposed Examples

- The leadership ensures that rewards/sanctions are aligned with nuclear safety policies and desired behaviors.
- The system of rewards and recognition is aligned with strong nuclear safety behaviors and outcomes.
- Management understands the impacts of both disciplinary actions and not holding people accountable.
- Management considers the potential chilling effects of disciplinary actions and other potentially adverse personnel actions and take compensatory actions when appropriate.
- Executives and senior managers reward individuals who report nuclear safety concerns. Publicly recognize behaviors at all levels that exhibit a strong safety culture.
- Managers reward individuals who report safety concerns or stop operations for safety reasons.
- Supervisors publicly praise behaviors of direct reports that reflect a strong safety culture, and reward individuals who report safety concerns or stop operations for safety reasons.

Leadership Safety Values and Actions (LA)

LA.4 Strategic Commitment to Safety: Leaders ensure plant priorities are aligned to reflect nuclear safety as the overriding priority.

Proposed Examples

- Management develops and implements production, cost, and schedule goals in a manner that reinforces the importance of nuclear safety.
- Production requirements are established, communicated and put into practice in a manner that reinforces nuclear safety.
- The station can be characterized as one where: “the line organization is the primary source of information and only source of direction and non-line groups are not allowed to dilute or undermine line authority and accountability.”
- Board members and corporate officers take steps to reinforce nuclear safety.
- Senior management and board members are regularly briefed by oversight to gain an understanding of station safety performance as well as an understanding of regulatory relationships focused on licensee safety.
- The priority of nuclear safety over production is reflected in the strategic and business plan so that all levels of management are committed and communicate the importance of nuclear safety.
- Senior Managers and other leaders publically link nuclear safety to strategic issues like budget, workforce planning, equipment reliability, backlog work-downs, etc.
- Executives and senior managers reinforce nuclear safety as the overriding priority.

Leadership Safety Values and Actions (LA)

LA.5 Change Management: Leaders use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority.

Proposed Examples

- Management uses a systematic process for planning, coordinating, and evaluating the safety impacts and potential chilling effects of decisions related to major changes in organizational structure and functions, leadership, policies, programs, procedures, and resources (e.g., reductions, outsourcing, and reorganization).
- A formal change management plan is regularly used to effectively implement major changes.
- The change management process maintains a clear focus on the safety implications of the prospective changes.
- The change management process is strong enough that significant unintended consequences are rarely seen.
- Once the change management process is underway, there are frequent personal communications from management so that worker questions receive an explanation and answer.
- Employees at all levels are trained on the importance and use of the change management process of the plant.
- The effects of impending organizational changes are anticipated, managed, and communicated such that trust is maintained.
- Executives and senior managers ensure consideration of nuclear safety and operational focus during planning and execution of major changes.
- Managers and supervisors actively monitor for potential distractions that adversely affect nuclear safety and operational focus during periods of major change.

Leadership Safety Values and Actions (LA)

LA.6 Roles, Responsibilities, and Authorities: Leaders clearly define roles, responsibilities, and authorities to ensure nuclear safety.

Proposed Examples

- Leaders ensure roles, responsibilities, and authorities are understood.
- Nuclear safety positions have clearly defined roles and responsibilities.
- Roles and responsibilities are appropriately documented.
- Management appropriately delegates responsibility and authority to promote ownership and accountability.
- Executives and senior managers facilitate relationships between corporate managers who support the nuclear organization and nuclear line managers, and educate corporate managers on their organization's support of nuclear safety.

Leadership Safety Values and Actions (LA)

LA.7 Constant Examination: Leaders ensure that nuclear safety is constantly scrutinized through a variety of monitoring techniques, including assessments of nuclear safety culture.

Proposed Examples

- Executives and senior managers create opportunities for senior corporate executives and external board members to meet with plant personnel and tour the plant.
- Executives and senior managers obtain outside perspectives of nuclear safety through selection of qualified and critical independent safety review board members with diverse backgrounds and perspectives.
- Executives and senior managers use diverse mechanisms such as employee surveys, independent assessments, external safety review board member feedback, and employee concern investigations to regularly monitor station nuclear safety culture. Candidly communicate results and actions throughout the organization, including to the Board of Directors.
- Managers support formal assessments of workplace attitudes and nuclear safety culture, and act on issues that affect trust in management or detract from a healthy nuclear safety culture.
- Supervisors participate in site-wide self-assessments and surveys by offering accurate, candid, and thoughtful input to help managers determine the health of the station's safety culture.
- Individual contributors participate in site-wide self-assessments and surveys by offering accurate, candid, and thoughtful input to help managers determine the health of the station safety culture.

Leadership Safety Values and Actions (LA)

LA.8 Leader Behaviors: Leaders exhibit behaviors that set the standard for safety.

Proposed Examples

- Management ensures nuclear safety and production are balanced and act decisively when a nuclear safety concern is raised.
- Management seeks to engage individuals to improve nuclear safety by striving for openness and strong communications throughout the organization.
- Management helps employees understand current safety issues and improvement focus activities.
- Executives and senior managers establish and communicate a clear, documented nuclear safety policy.
- Executives, managers, and supervisors “walk the talk,” modeling the correct behaviors, especially when line managers are resolving apparent conflicts between nuclear safety defense-in-depth and production.
- Executives and senior managers maintain high standards of personal conduct that promote teamwork, continuous improvement, and a positive work environment.
- Executives and senior managers demonstrate interest in plant operations and actively seek out the opinions and concerns of workers at all levels. Follow up with station managers to ensure workers’ concerns are being addressed.
- Executives and senior managers challenge others in the area of safety culture.
- Executives and senior managers encourage personnel to challenge unsafe behavior and unsafe conditions, and support personnel when they stop plant activities for safety reasons.
- Managers motivate others to perform safety culture behaviors.
- Supervisors maintain high standards of personal conduct and communication that promote teamwork, continuous improvement, and a questioning attitude.

Problem Identification & Resolution (PI)

Issues potentially impacting safety are promptly identified, fully evaluated, and promptly addressed and corrected commensurate with their significance.

- PI.1 Identification
- PI.2 Evaluation
- PI.3 Resolution
- PI.4 Trending

**Problem Identification
& Resolution**

PI

Problem Identification & Resolution (PI)

PI.1 Identification: The organization implements a corrective action program with a low threshold for identifying issues. Individuals identify issues completely, accurately, and in a timely manner in accordance with the program.

Proposed Examples

- Management implements a corrective action program with a low threshold for identifying issues.
- Concerns, problems, degraded conditions, and near misses are promptly reported and documented in the corrective action program.
- Issues entered in the corrective action program are described in sufficient detail to ensure they are appropriately prioritized and assigned to the appropriate group for resolution.
- All personnel can use the corrective action program to identify conditions or behaviors that have the potential to degrade nuclear safety, operating margins, and/or safe work performance.
- Management uses realistic performance indicators that may suggest deviations from the norm or declining performance.
- Employees are trained to recognize deviations from the norm and to formulate and implement solutions.
- Active risk management practices are applied as problems are identified.

Problem Identification & Resolution (PI)

PI.2 Evaluation: The organization thoroughly evaluates problems to ensure that resolutions address causes and extent of conditions, commensurate with their safety significance.

Proposed Examples

- Problems are properly classified, prioritized, and evaluated for operability and reportability conditions adverse to quality.
- Management conducts effectiveness reviews of significant corrective actions to ensure that the problems are resolved.
- Operability determinations are developed when required or appropriate.
- Apparent and root cause investigations identify primary and contributing causal factors for conditions adverse to quality.
- Extent of condition evaluations and walk-downs are completed in a timely manner, commensurate with the safety significance of the issue.
- Personnel apply a rigorous approach to problem-solving.
- Anomalies are recognized, thoroughly investigated, and promptly mitigated.
- Root cause analysis is effectively applied to identify and correct the fundamental cause of events.
- Organizational contributors to events are given the necessary time and resources to be clearly understood.
- Organizational and system-induced contributors to events and station weaknesses are sought out and eliminated. Seek to understand the basis for worker decisions that contributed to such events.

Problem Identification & Resolution (PI)

PI.3 Resolution: The organization takes effective corrective actions to address issues in a timely manner, commensurate with their safety significance.

Proposed Examples

- Management takes appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.
- Information is communicated regarding the Corrective Action Program (CAP) to identify and resolve programmatic and common cause problems.
- The CAP is utilized effectively to resolve conditions adverse to quality and nuclear safety in a timely manner.
- The CAP is efficient and effective in correcting a problem the first time it appears.
- Personnel promptly reports unusual or unexpected conditions that can affect nuclear safety.
- Corrective actions are completed in accordance with due dates or the dates are extended per an established process.
- Corrective actions resolve and correct the identified condition adverse to quality.
- Corrective actions prevent the recurrence of significant conditions adverse to quality.

Problem Identification & Resolution (PI)

PI.4 Trending: The organization periodically analyzes information from the corrective action program and other assessments in the aggregate to identify programmatic and common cause issues.

Proposed Examples

- Management tracks and trends safety indicators which provide an accurate representation of performance.
- Trends in safety performance indicators are acted upon to resolve problems early.
- Managers routinely challenge operators and engineers to demonstrate an understanding of declining trends and provide support for projects and initiatives that reverse those trends.
- Organizational and departmental trend reviews are completed in a timely manner in accordance with program expectations.

Personal Accountability (PA)

All individuals take personal responsibility for safety.

- PA.1 Standards
- PA.2 Job Ownership
- PA.3 Teamwork

**Personal
Accountability**

PA

Personal Accountability (PA)

PA.1 Standards: Individuals understand the importance of adherence to nuclear standards. All levels of the organization exercise accountability for shortfalls in meeting standards.

Proposed Examples

- The workforce demonstrates a proper focus on nuclear safety and reinforces this through peer coaching and co-worker discussions.
- Personnel understand the importance of adherence to nuclear safety standards while exercising strong accountability for shortfalls in meeting standards.
- Safety standards are consistently applied across the organization.
- There is a high level of compliance with procedures where doing the right thing (even it costs money or time) is emphasized.
- Individual hold themselves personally accountable for modeling nuclear safety behaviors, including the standards for procedure use, the use of error reduction tools, and stopping when unsure or when conditions are not as expected.
- Individual contributors actively solicit and are open to performance feedback.
- Individual contributors encourage coworkers to adhere to high standards and to be open to performance feedback.
- Individual contributors help supplemental personnel understand expected work behaviors and required actions associated with their jobs necessary to maintain nuclear safety and defense-in-depth.

Personal Accountability (PA)

PA.2 Job Ownership: Individuals understand and demonstrate personal responsibility for the behaviors and work practices that support nuclear safety.

Proposed Examples

- Personnel follow procedures and use human error prevention techniques.
- Personnel use self- and peer-checking and properly document activities, commensurate with the risk of the assigned task.
- Ownership for nuclear safety is evident in individuals at all organizational levels including support groups (e.g., human resources, labor relations, business and financial planning).
- Workers understand that they are personally responsible for behaviors and work practices supporting nuclear safety as well as raising personal or workgroup concerns.
- Work teams integrate nuclear safety messages into daily activities such as pre-job briefs and walk-downs.
- Employees work with their supervisor to walk down and talk with others involved in upcoming work.
- Personnel take ownership for the preparation and execution of assigned work activities.
- Personnel actively participate in pre-job briefings. Fully understand the impact on nuclear safety, defense-in-depth, potential error traps, the scope of work, critical steps, priority error reduction tools, termination criteria, and required notifications to the control room and supervision associated with the assigned activity.
- Personnel stop work activities when confronted with an unexpected condition and resolve the condition with supervisors and, as appropriate, system and equipment experts prior to continuing work activities.

Personal Accountability (PA)

PA.3 Teamwork: Individuals and workgroups communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained.

Proposed Examples

- Individuals and teams work across workgroup boundary lines to maintain a clear focus on nuclear safety.
- Shift turnovers are coordinated to clearly support the maintenance of nuclear safety.
- A workgroup—independent of their direct supervisor— provides peer-checks in such areas as verifying certifications and training for job assignments, ensuring detailed safety practices, actively peer coach new personnel, and sharing tools and publications.
- Tools and shift changes are shared across workgroups to promote safe work practices.
- Individuals demonstrate of strong sense of collaboration and cooperation in connection with project and operational activities.

Work Processes (WP)

The process of planning and controlling work activities is implemented so that safety is maintained.

- WP.1 Work Management
- WP.2 Design Margins
- WP.3 Documentation
- WP.4 Procedure Adherence

Work Processes

WP

Work Processes (WP)

WP.1 Work Management: The organization implements a process of planning, controlling, and executing work activities such that nuclear safety is the overriding priority. The work process includes the identification and management of risk commensurate to the work.

Proposed Examples

- Management appropriately considers risk insights, job site conditions, planned contingencies, the impact of changes to the work scope, the need for coordination with different groups or job activities, and the need to keep personnel apprised of work status.
- Work is effectively planned and executed by incorporating a wide range of requirements such as risk insights, job site conditions; and the need for planned contingencies, compensatory actions and abort criteria.
- Work management practices support a strong nuclear safety culture.
- Managers maintain cognizance of the status of the plant, the nuclear safety risks associated with work in the field, and other parallel station activities.
- Managers maintain critical safety function defense-in-depth by developing appropriate contingencies.
- Supervisors know the status of the plant, the nuclear safety risks associated with assigned jobs, and other parallel station activities. They do not allow work on protected safety trains, systems, and components being used to maintain safety system defense-in-depth.

Work Processes (WP)

WP.2 Design Margins: The organization operates and maintains equipment within design margins. Margins are carefully guarded and changed only through a systematic and rigorous process. Special attention is placed on maintaining fission product barriers, defense in depth, and safety related equipment.

Proposed Examples

- Management maintains long term plant safety by maintenance of design margins, minimization of long-standing equipment issues, minimizing preventative maintenance deferrals, and ensuring maintenance and engineering backlogs are low enough support safety.
- Design margins and requirements along with operating margins are carefully guarded and changed only with great thought and care.
- There is a strong focus on minimization of long-standing equipment issues, minimizing preventive maintenance deferrals, and ensuring maintenance and engineering backlogs are low enough to strongly support nuclear safety.
- Safety-related equipment is operated and meticulously maintained, well within design requirements.
- Insights from probabilistic risk analysis are considered in daily plant activities and plant change processes.

Work Processes (WP)

WP.3 Documentation: The organization creates and maintains complete, accurate and up-to-date documentation.

Proposed Examples

- The station ensures complete, accurate, and current design documentation, procedures, work packages and correct labeling of components.
- The backlog of change requests is actively managed to ensure, maintain and enhance the quality of documentation.
- Work activities are coordinated to address conflicting or changing priorities across the whole spectrum of activities contributing to nuclear safety.
- Work activities are developed to support long-term equipment reliability by limiting temporary modifications and ensuring maintenance scheduling is more preventive than reactive.

Work Processes (WP)

WP.4 Procedure Adherence: Individuals follow processes, procedures and work instructions.

Proposed Examples

- There is a high level of compliance with procedures where doing the right thing (even it costs money or time) is emphasized.
- Plant activities are governed by comprehensive, high-quality processes and procedures.
- Processes, procedures and work instructions are maintained current and constructed to be easily understood. Identified points of confusion or errors are addressed on a schedule to preclude problems with upcoming activities.
- Supervisors review procedures and instructions prior to work to validate that they are appropriate for the scope of work and that required changes are completed prior to beginning work.
- Individual contributors review procedures and instructions prior to work to validate that they are appropriate for the scope of work and that required changes are completed prior to beginning work.
- Individual contributors manipulate plant equipment only when appropriately authorized and directed by approved plant procedures or work instructions.

Continuous Learning (CL)

Opportunities to learn about ways to ensure safety are sought out and implemented.

- CL.1 Operating Experience
- CL.2 Self Assessment
- CL.3 Benchmarking
- CL.4 Training

**Continuous
Learning**

CL

Continuous Learning (CL)

CL.1 Operating Experience: The organization systematically and effectively collects, evaluates, and implements relevant internal and external operating experience in a timely manner.

Proposed Examples

- Operating experience is implemented and institutionalized through changes to station processes, procedures, equipment, and training programs.
- The licensee performs a thorough review of operating experience provided by internal and external sources in accordance with an established process.
- Relevant internal and external OE is collected, distributed, and used on a timely basis.
- Operating experience is used to understand industry challenges and adopt new ideas to improve performance.
- Lessons learned from internal and external OE are used to support daily work functions and includes the message that this has happened here or could happen here.

Continuous Learning (CL)

CL.2 Self Assessment: The organization routinely conducts self-critical and objective assessments of its programs and practices.

Proposed Examples

- Management periodically conducts comprehensive and objective self and independent assessments of their programs and practices to identify areas for improvement, and takes corrective actions commensurate with their significance.
- Management periodically assesses the effectiveness of oversight groups and programs such as CAP and policies.
- Internal and external assessments, including self-assessments are thorough and effective.
- Self-assessments have a known frequency and provide objective, comprehensive, and self-critical information and drive corrective actions.
- A balanced approach of self-assessments and independent oversight is used and periodically adjusted based on changing needs.
- Periodic nuclear safety culture assessments are conducted and used as a basis for improvements.
- Employees believe that the plant has a strong quality assurance process and organization.
- Employee involvement in self-assessments is actively sought to improve nuclear safety.

Continuous Learning (CL)

CL.3 Benchmarking: The organization learns from other organizations to continuously improve knowledge, skills, and safety performance.

Proposed Examples

- Personnel continuously strive to improve their knowledge, skills, and safety performance through activities such as benchmarking, being receptive to feedback, and setting performance goals.
- Personnel improve their knowledge through activities such as benchmarking, looking for feedback, and setting performance goals.
- Innovative ideas are adopted from wherever available to improve nuclear safety.
- Personnel seek out better practices by using benchmarking to understand how others perform the same functions.
- Employee involvement in benchmarking is actively sought to improve nuclear safety.
- The plant participates in benchmarking activities with other facilities.

Continuous Learning (CL)

CL.4 Training: The organization provides training and ensures knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values.

Proposed Examples

- Continuous learning is expected of everyone.
- Adequate training and knowledge transfer are provided to the workforce to ensure technical competency as well as an understanding of both the standards and work requirements.
- Personnel are effectively trained on the plant's safety policies.
- Training reinforces safe and expected worker behaviors for nuclear safety.
- Employees master reactor and power plant fundamentals to establish a solid foundation for sound decisions and behaviors.
- Leadership skills are systematically developed.
- Employee involvement in training is actively sought to improve nuclear safety.
- Executives and senior managers obtain the training necessary to understand basic plant operation and the relationships between major functions and organizations.
- The organization has programs to use the knowledge and skill of experienced individuals to help advance the knowledge and skill of less experienced and developed employees.

Environment for Raising Concerns (RC)

A safety conscious work environment (SCWE) is maintained where personnel feel free to raise safety concerns without fear of retaliation, intimidation, harassment, or discrimination.

- RC.1 SCWE Policy
- RC.2 Alternative Process for Raising Concerns

**Environment for
Raising Concerns**

RC

Environment for Raising Concerns (RC)

RC.1 SCWE Policy: The organization effectively implements a policy that supports individuals' rights and responsibilities to raise safety concerns, and does not tolerate harassment, intimidation, retaliation, or discrimination for doing so.

Proposed Examples

- Personnel are able to raise nuclear safety issues without fear of retaliation.
- Safety policies reinforce that individuals have the right and responsibility to raise nuclear safety issues through available means, including avenues outside their organizational chain of command and to external agencies, and obtain feedback on the resolution of such issues.
- All personnel are trained that harassment and retaliation for raising safety concerns is a violation of law and policy and will not be tolerated.
- Management is trained to respond appropriately to safety concerns.
- Claims of discrimination are investigated and any necessary corrective actions are taken in a timely manner, including actions to mitigate any potential chilling effect on others due to the personnel action under investigation.
- Personnel are confident that they can raise nuclear safety concerns without fear of retribution and that their concerns will be addressed.
- Executives and senior managers reinforce expectations that station leaders must welcome and solicit employee concerns and maintain a safety-conscious work environment throughout the entire nuclear organization.
- A safety-conscious work environment is maintained by providing opportunities for open discussion of nuclear safety and identification of perceived unsafe behavior and unsafe conditions. Follow up and provide feedback on actions taken.
- Managers reinforce with all direct reports that they must welcome and solicit employee concerns and respond appropriately to them.
- Managers are sensitive to the negative impact that intimidation and personal attacks have on trust and on maintaining a safety-conscious work environment.

Environment for Raising Concerns (RC)

RC.2 Alternate Process for Raising Concerns: The organization effectively implements a process for raising and resolving concerns that is independent of line management influence. Safety issues may be raised in confidence and are resolved in a timely and effective manner.

Proposed Examples

- Processes for raising concerns or resolving differing professional opinions that are alternates to the licensee's corrective action program or line management are communicated and accessible to employees.
- The station has an alternative process for raising safety concerns which results in appropriate and timely resolutions of identified problems (i.e., a process for raising concerns that is an alternate to corrective action program or line management).
- Alternative processes include an option to raise issues in confidence and do not report to line management or those who would, in the normal course of activities, be responsible for addressing the issue raised.
- When appropriate, conclusions are made independent of line management and not influenced by lower-level management.
- Policies support and reinforce an individual's right and responsibility to raise nuclear safety issues through available means, including avenues outside their organizational chain of command and to external agencies.
- Personnel are aware of and have confidence in the Employee Concerns Program (ECP).
- There is confidence that issues reported through the ECP are thoroughly investigated and appropriately resolved.
- Personnel receive timely and complete feedback on the resolution of issues.

Effective Safety Communication (SC)

Communications maintain a focus on safety.

- SC.1 Work Process Communications
- SC.2 Basis for Decisions
- SC.3 Free Flow of Information
- SC.4 Expectations

**Effective Safety
Communication**

SC

Effective Safety Communication (SC)

SC.1 Work Process Communications: Individuals incorporate safety communications in work activities.

Proposed Examples

- Management communicates expectations for use of human error prevention techniques such as pre-job briefings, self- and peer-checking, and proper documentation of activities, commensurate with the risk of the assigned task.
- Management defines and effectively communicates expectations regarding procedural compliance.
- Management regularly communicates the importance of personnel following procedures to all employees and contractors.
- Work teams communicate—independent of their direct supervisor—across workgroup boundaries with other plant workers and supervision in the completion of their work assignments.

Effective Safety Communication (SC)

SC.2 Basis for Decisions: Leaders ensure that the basis for operational and organizational decisions is communicated in a timely manner.

Proposed Examples

- Management communicates decisions and the basis for decisions to personnel who have a need to know that information in order to person work safety, in a timely manner.
- Management communicates expected outcomes, potential problems, planned contingencies, and abort criteria for important operational decisions promptly to the workforce.
- Management shares information on a wide range of issues with employees and periodically checks worker understanding of these communications.
- Executives and senior managers are sensitive to unintended or conflicting messages that may be sent during operational decisions that impact production.
- Supervisors question station decision-makers to fully understand the basis of operational and management decisions that appear to be contrary to nuclear safety.

Effective Safety Communication (SC)

SC.3 Free Flow of Information: Individuals communicate openly and candidly, both up, down, and across the organization, and with oversight, audit, and regulatory organizations.

Proposed Examples

- Personnel behaviors and interactions encourage free flow of information related to raising nuclear safety issues, differing professional opinions, and identifying issues in the CAP and through self-assessments.
- Supervisors respond to employee safety concerns in an open, honest, and non-defensive manner.
- Personnel provide complete, accurate, and forthright information to oversight, audit, and regulatory organizations.
- Employee behaviors and interactions at all levels encourage free flow of information in such areas as nuclear safety issues, differing professional opinions, and identification of issues into the CAP.
- Station management listens to employee concerns and communicates openly with all personnel on safety issues.

Effective Safety Communication (SC)

SC.4 Expectations: Leaders frequently communicate and reinforce the expectation that nuclear safety is the organization's overriding priority.

Proposed Examples

- Senior managers and corporate executives communicate expectations on nuclear safety so that personnel understand that safety is of the highest priority and do not confuse this priority with production goals.
- There are good communications about nuclear safety issues that affect the job and the work done.
- Executives and senior managers execute an ongoing communication strategy using multiple mediums and messages to keep nuclear safety visible to the workforce. Share examples of how individual behaviors can positively and negatively affect nuclear safety.
- Managers and supervisors communicate and teach desired nuclear safety behaviors to the workforce. Share examples of how individuals can positively and negatively affect nuclear safety. Verify that the intended messages were actually heard and understood.
- Managers and supervisors consistently reinforce nuclear safety as the overriding priority, and use actual examples to exemplify desired behaviors. Publicly praise behaviors in peers, colleagues, and direct reports that reflect a strong safety culture.
- Supervisors ensure assigned supplemental personnel understand expected work behaviors and required actions associated with their jobs to maintain nuclear safety and defense-in-depth.
- Executives, managers and supervisors provide candid feedback to people and groups that are not demonstrating high standards.

Respectful Work Environment (WE)

Trust and respect permeate the organization.

- WE.1 Respect is Evident
- WE.2 Opinions are Valued
- WE.3 High Level of Trust
- WE.4 Conflict Resolution

**Respectful Work
Environment**

WE

Respectful Work Environment (WE)

WE.1 Respect is Evident: Everyone is treated with dignity and respect.

Proposed Examples

- People and their professional capabilities and experiences are regarded as the nuclear organization's most valuable asset.
- People are treated with dignity and respect by all levels of the organization.
- Bullying or humiliating behaviors are not tolerated or demonstrated by leaders- either formally or informally.
- Employee work spaces are clean, well-supplied, and well- maintained.
- Work team members treat the other members with respect.
- Policies and expectations are enforced fairly and consistently for all employees, including managers.

Respectful Work Environment (WE)

WE.2 Opinions are Valued: Individuals are encouraged to voice concerns, provide suggestions, and questions. Differing opinions are respected.

Proposed Examples

- Employees are encouraged to offer innovative ideas, concerns, suggestions, differing opinions, and questions to help identify and solve problems.
- When solving problems, robust discussions and healthy conflict are recognized as a natural result of differences in expertise and experience.
- The insights and fresh perspectives provided by quality assurance, assessment, the employee concerns program, and independent oversight personnel are valued.
- Managers, supervisors and staff respect each other's role in decision-making.

Respectful Work Environment (WE)

WE.3 High Level of Trust: Trust is fostered among individuals and workgroups throughout the organization.

Proposed Examples

- Trust is evident between leaders and workers; leaders and line organizations; and organizations.
- Managers and supervisors respond to employee questions in an open and honest manner.
- There is open sharing of information such as important plant information and changes that are expected.
- Performance issues with employees are handled directly with employees and not discussed “behind their back.”
- Station leaders accept performance feedback and change their behavior.

Respectful Work Environment (WE)

WE.4 Conflict Resolution: Fair and objective methods are used to resolve conflict.

Proposed Examples

- When needed, fair and objective methods, such as “dispute resolution,” are available to resolve conflict and unsettled differing professional opinions.
- When management resolve conflicts, outcomes are perceived as fair and reasonable.
- Conflict is respectfully and professionally resolved.

Questioning Attitude (QA)

Individuals avoid complacency and continuously challenge existing conditions and activities in order to identify discrepancies that might result in error or inappropriate action.

- QA.1 Nuclear is Recognized as Special and Unique
- QA.2 Challenge the Unknown
- QA.3 Challenge Assumptions
- QA.4 Avoid Complacency

**Questioning
Attitude**

QA

Questioning Attitude (QA)

QA.1 Nuclear Is Recognized as Special and Unique: Individuals understand that complex technologies can fail in unpredictable ways.

Proposed Examples

- Activities that could affect core reactivity are conducted with particular care and caution.
- Features designed to maintain critical safety functions, such as core cooling, are recognized as particularly important.
- Executives and senior managers ask questions to fully understand anomalies in plant conditions, especially how rigorously and the extent to which these anomalies are investigated. Challenge line managers to fully resolve degraded conditions, especially those of nuclear safety equipment.
- Executives and senior managers reinforce the expectation that the reactor be shut down when procedurally required, when the margin for safe operation has degraded unacceptably, or when the condition of the reactor is uncertain.

Questioning Attitude (QA)

QA.2 Challenge the Unknown: Individuals stop when faced with uncertain conditions. Risks are evaluated and managed before proceeding.

Proposed Examples

- Managers reinforce expectations to supervisors and front-line workers to take the time to do the job right the first time and to seek advice when unsure. Reinforce the expectation to stop when plant conditions do not match expected responses during field evolutions.
- Supervisors reinforce the performance of job-site reviews to identify and correct conditions that could impede the safe completion of the assigned task or the safe operation of the plant.
- Unanticipated test results are challenged, not rationalized. For example, abnormal indications are not attributed to indication problems, but are thoroughly investigated before a procedure or work document is allowed to continue.
- Unexpected plant conditions or responses are communicated to the control room for evaluation prior to continuation of work activities.
- If a procedure or work document is unclear or cannot be performed as written, work is stopped until the issue is resolved by the appropriate level of management.
- Personnel stop work activities when confronted with an unexpected condition and resolve the condition with supervisors and, as appropriate, system and equipment experts prior to continuing work activities.

Questioning Attitude (QA)

QA.3 Challenge Assumptions: Individuals challenge assumptions and offer opposing views when they think something is not correct.

Proposed Examples

- Dialogue and debate are encouraged when evaluating nuclear safety issues
- Individual contributors question station decision-makers to fully understand the bases of operational and management decisions that appear to be contrary to nuclear safety.
- Managers question analysis assumptions during decision-making.
- Managers question decision-making and justifications that appear to not consider nuclear safety impacts sufficiently.

Questioning Attitude (QA)

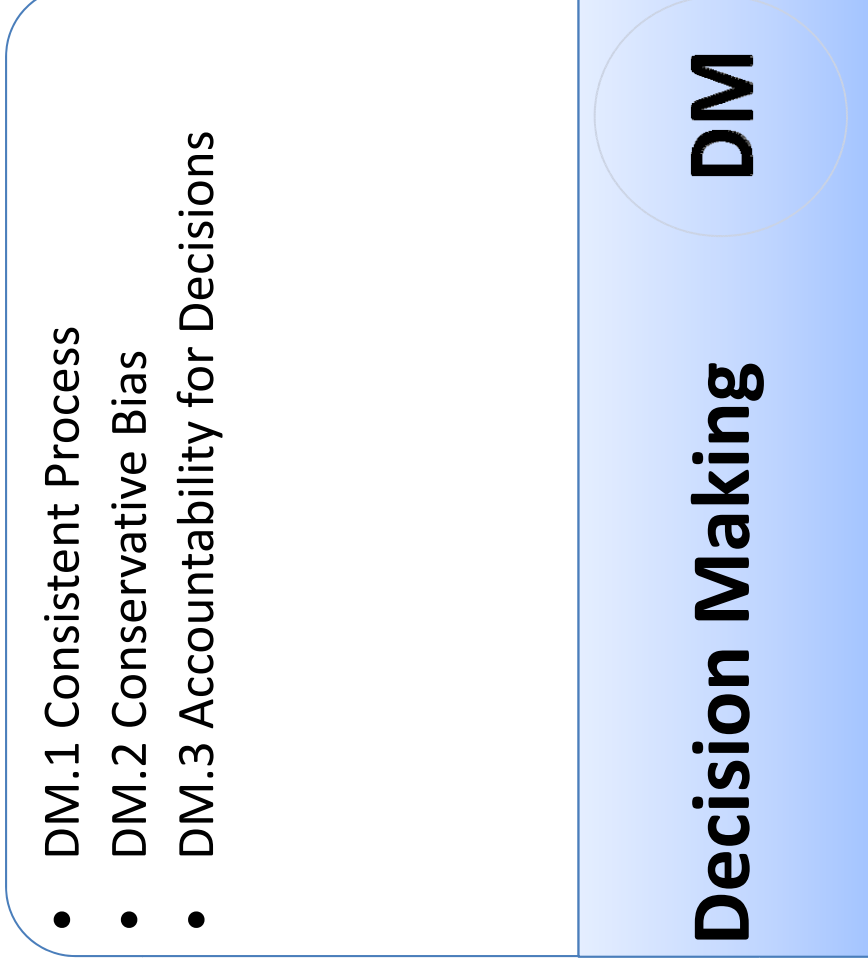
QA.4 Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent problems, or inherent risk, even while expecting successful outcomes.

Proposed Examples

- Procedure prerequisites are verified by the individual authorizing the work, not assumed to be met based on general plant conditions.
- Individual contributors perform a review of the work site to identify and correct job-site conditions that are not as expected or that potentially impact the safe completion of the assigned task.
- Individual contributors take the time to do the job right the first time and seek advice when unsure. Stop if plant conditions are not as expected.
- Supervisors and individual contributors ask, “What is the most likely undesired consequence of this action?” to validate appropriate contingency actions and to ensure operational and nuclear safety impacts are appropriately identified prior to beginning work.

Decision Making (DM)

Decisions that support or affect nuclear safety are systematic, rigorous, and thorough.



Decision Making (DM)

DM.1 Consistent Process: Individuals use a consistent, systematic approach to make decisions. Risk insights are incorporated as appropriate.

Proposed Examples

- Management makes safety-significant or risk-significant decisions using a systematic process.
- Risk insights are considered in the decision-making process.
- Interdisciplinary inputs or reviews are sought when making safety- or risk-significant decisions.
- Effectiveness reviews of safety-significant decisions are conducted to determine how to improve future decisions.
- When previous operational decisions are called into question by new facts, decisions are reviewed to improve the quality of future decisions.
- There is a formal decision making process expected to be used by employees.
- The decision making process is understood by all employees. The process is defined and is consistently used with variations allowed for the complexity of the issue being decided.

Decision Making (DM)

DM.2 Conservative Bias: Individuals use decision making practices that emphasize prudent choices over those that are simply allowable. A proposed action is determined to be safe in order to proceed, rather than unsafe in order to stop.

Proposed Examples

- Leaders demonstrate how a proposed action is safe before proceeding, rather than demonstrating that it is unsafe so as to stop an action.
- Supervisors and front-line workers handle emergent or unscheduled work with extreme caution.
- Supervisors take a conservative approach to decision-making particularly when information is incomplete or conditions are off-normal or anomalous.
- Decisions consider both long-term consequences as well as the immediate presenting problem.
- Managers demonstrate a bias for action to fully resolve degraded conditions.
- Managers ensure that the reactor will be shut down when procedurally required, when the margin for safe operation has degraded unacceptably, or when the condition of the reactor is uncertain.

Decision Making (DM)

DM.3 Accountability for Decisions: Single-point accountability is maintained for nuclear safety decisions.

Proposed Examples

- Management formally defines the authority and roles for decisions affecting nuclear safety, communicates these roles to applicable personnel, and implements these roles and authorities as designed.
- Operations are vested with the authority to place the plant in a safe condition when faced with unexpected or uncertain conditions.
- Single-point accountability is maintained for important safety decisions.
- Important nuclear safety decisions are made at the correct level.
- Decisions are typically made at the lowest level allowed by policies, procedures and practices.