

SAFETY CULTURE COMPONENTS

Work Control - Processes for planning and coordinating work activities ensure nuclear safety is supported. Work packages are adequate to ensure work is completed safely. Personnel maintain awareness of the potential risks of work activities, recognize the possibility of mistakes and worst-case scenarios, and make conservative decisions. When planning and coordinating work activities, consideration is given to:

- risk insights,
- job site conditions which may impact human error,
- task sequencing to optimize safety system availability,
- the impact of changes on the plant and human error,
- the impact of the work on different job activities, and
- the need for planned contingencies, compensatory actions, and abort criteria.

In addition, work activities are planned to limit temporary modifications, operator work-arounds, safety systems unavailability, and reliance on manual actions. Maintenance scheduling is more predictive than reactive to support long-term equipment reliability. Personnel are trained and qualified for the tasks to be performed, and are kept apprised of work status and the operational impact of work activities.

Decision-Making - Decisions demonstrate that nuclear safety is an overriding priority. Decisions are made at the appropriate organizational levels, using a systematic process, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained. Conservative decision-making is demonstrated through using conservative assumptions, considering risk insights and potential consequences and contingencies, and maintaining design margins and long-term equipment reliability. Interdisciplinary input and reviews are obtained on safety-significant or risk-significant decisions, and the results of decisions are communicated.

Work Practices - Human error prevention techniques are communicated, understood, and used commensurate with the risk of the assigned task, such that work activities are performed safely and without unintended consequences. Human performance is supported by holding pre- and post-evolution briefings, as appropriate, correct labeling of components, and providing communications on the status of activities, including any changes. Procedural compliance is understood and procedures are followed by personnel. Human performance, including fitness for duty, is monitored and addressed. Work groups maintain interfaces with offsite organizations, and communicate, coordinate, and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance. Personnel do not proceed in the face of uncertainty.

Resources - Personnel, equipment, and other resources that are necessary to assure nuclear safety are available and dedicated, including those required for:

- capital improvements required to maintain plant safety,
- resolution of long-standing equipment issues,
- procedures and work packages that are clear, accurate, and up-to-date,
- sufficient qualified personnel to maintain work hours within working hours guidelines,
- training of personnel,
- maintenance with manageable backlogs,

- accurate and up-to-date design documentation,
- simulator fidelity and availability, and
- adequate emergency facilities.

Operating experience - Relevant internal and external operating experience (OE) is systematically collected, communicated, and evaluated in a timely manner. Affected stakeholders are informed of relevant OE information. Lessons learned from OE are institutionalized through changes to station processes, procedures, equipment, and training programs. Relevant OE information is reviewed before conducting risk-significant work.

Self- and Independent Assessments - Self- and independent assessments of the organization's activities and practices are conducted to assess performance and identify areas for improvement. Self-assessments are conducted at an appropriate frequency, are of sufficient depth, and are self-critical. Results from assessments are coordinated, communicated to affected personnel, and corrective actions are taken to address issues. The effectiveness of oversight groups and programs such as CAP are periodically assessed. Individuals assigned to perform assessments have the necessary training, skills, and authority. Safety indicators which provide an accurate representation of performance are tracked and trended, and appropriate corrective actions are taken. Effectiveness reviews of safety-significant decisions are conducted to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions.

Corrective Action Program - Safety problems are identified with a low threshold. Such problems are identified completely, accurately, and in a timely manner commensurate with their safety significance. When personnel identify conditions or behaviors that may adversely impact safety, they raise questions and challenge actions. Conditions adverse to quality are properly classified, prioritized, and evaluated for operability and reportability.

For significant problems, effectiveness reviews of corrective actions are conducted to ensure that the problems are resolved. Skilled, knowledgeable personnel perform causal analyses and event investigations. Problem and corrective action backlogs are kept low enough to permit response to issues of safety significance in a timely manner.

Information from the CAP and other assessments is periodically trended and assessed in the aggregate to identify programmatic and common cause problems. Actions to address adverse trends are taken in a timely manner, commensurate with their safety significance and complexity. If an alternative process (i.e., a process for raising concerns that is an alternate to the licensee's corrective action program or line management) for raising safety concerns exists, then it results in appropriate and timely resolutions of identified problems.

Continuous learning environment - Adequate training and knowledge transfer are available to all personnel on site to ensure technical competency. Personnel benchmark actively, are receptive to feedback, and continuously strive to improve their knowledge, skills, and safety performance. Communication is effective for transmitting information learned from internal and external sources about industry and plant issues.

Safety conscious work environment (SCWE) policies - Formal policies and training exist to require and reinforce that personnel understand their rights and responsibilities to raise and clearly communicate nuclear safety issues and participate in the resolution of such issues. The effectiveness of the formal policies and training is assessed and actions are taken to address

any negative trends identified.

Willingness to raise concerns - Behaviors during personnel interactions encourage raising nuclear safety issues, and past behaviors do not discourage personnel from raising such issues. Personnel communicate freely and openly. Supervisors are skilled in responding to employee safety concerns in an open and honest manner. Complete, accurate, and forthright information is provided to oversight, audit, and regulatory organizations. Personnel raise nuclear safety issues without fear of retaliation. If an alternative process (i.e., a process for raising concerns that is an alternate to the licensee's corrective action program or line management) for raising safety concerns exists, then it is accessible, confidential, and independent.

Preventing and detecting retaliation - The workplace is free from harassment and retaliation for raising safety issues. All personnel understand that harassment and retaliation are not tolerated. Claims of discrimination are fully investigated and any necessary corrective actions taken. The potential chilling effects of disciplinary actions are considered and compensatory actions are taken when appropriate.

Safety policies - Safety policies and training exist to require that nuclear safety is an overriding priority. Formal organizational policies and goals address the proper role of safety considerations in the organization's decision-making. Organizational decisions and actions reinforce and are consistent with the formal policies. Leaders recognize that production goals, if not properly communicated, can send mixed signals on the importance of nuclear safety. Senior managers and corporate personnel periodically take steps to communicate and reinforce nuclear safety. Personnel understand that safety is of the highest priority.

Accountability - The line of authority and responsibility for nuclear safety is defined. Accountability is maintained for important safety decisions. Management reinforces safety standards, provides oversight in the field, particularly during infrequently performed or safety significant evolutions, and models safe behaviors. Staff demonstrate a proper safety focus and reinforce safety principles among their peers. The system of rewards and sanctions is aligned with strong nuclear safety policies and reinforces behaviors and outcomes which reflect safety as the highest priority.

Organizational change management - Decisions related to major changes in organizational structures and functions, leadership, and resources incorporate safety considerations and are communicated effectively to personnel. A systematic process is used for planning, coordinating, and evaluating the safety impact of organizational changes and to identify potential unintended consequences of such changes and there is evidence that the process is used.