

## Attributes of an Effective Corrective Action Program

### A. Policies, Programs, and Procedures

The licensee describes the Corrective Action Program (CAP) expectations, requirements and implementation processes in policies, programs and/or procedures that apply to and are uniformly implemented across the licensees' organization and licensed operations.

The CAP policies, programs and/or procedures ensure that:

1. Managers, supervisors and staff are informed and aware of their roles and responsibilities regarding the CAP.
2. Employees are encouraged to identify and report safety and security issues and are aware and assured that they can report issues without fear of retaliation or discrimination.
3. Management is periodically informed of the status of CAP information, including the status of corrective actions.
4. The CAP is adequately resourced and managed so that effective corrective actions that prevent the recurrence of issues or the occurrence of similar issues are developed and timely implemented in accordance with a specified evaluation and resolution process that can include a graded approach based on the issues significance.
5. The CAP procedures describe the process for the timely and appropriate identification and reporting of safety and security issues, including regulatory compliance issues, and the documentation, tracking, trending, assessment for significance, evaluation and investigation to identify causal factors, including root causes and contributing factors, of these issues. The CAP procedures also describe the process for corrective action development, tracking, trending, implementation and assessment for completeness and effectiveness. CAP procedures are issued and managed as required by the procedure control program.
6. The licensee conducts periodic, independent assessments of the CAPs overall effectiveness and uses the results of this assessment to improve its implementation of the CAP.

### B. Identification, Reporting and Documentation of Safety and Security Issues

Licensee staff, supervisors, and managers routinely recognize and promptly report safety and security issues in a manner that supports the timely and effective assessment of the issues. CAP related information is appropriately documented and retained for reference to support the communication, tracking and trending of information.

The CAP policies, programs and/or procedures ensure that:

1. Employees are informed and aware of the requirement to identify and report safety and security issues, including regulatory compliance issues, related to a variety topics and areas including human performance, facility and equipment conditions, programs and procedures, administrative and regulatory limit exceedances, and similar activities or conditions that have potential or actual safety and security consequences.

2. Safety and security issues reported for review and evaluation in the CAP include issues identified from a variety of sources such as personal observation and experience, licensee audits and self-assessments, safety committees, licensee events and unusual occurrence reports, IROFS failures, maintenance tests and surveillances, quality assurance program assessments, near misses, NRC-identified issues, NRC and industry operating experience, and other relevant sources.

3. Employees are able to report safety and security issues by several methods, such as verbal, hand-written or electronic methods. Each reporting method promotes the collection and documentation of the type and quantity of information necessary to assess the issue's significance and support the follow-up of the issue as part of the causal factors evaluation. The CAP reporting procedure also includes a means of making anonymous reports of safety and security issues.

4. The procedures that describe the methods of reporting safety and security issues are comprehensive, readily available, easily understood and clearly define what issues should be reported and how to report them,. The CAP procedures emphasize the reporting of issues at the lowest level and as soon as possible to ensure the resolution of the issues before they result in more significant problems.

5. Reported safety and security issues and the relevant information such as information associated with the facts and circumstances related to the issue, the assessment of its significance, immediate response actions, causal factor evaluation method and results, corrective action determination and implementation, and confirmation of the completeness and effectiveness of the corrective action are appropriately documented. The documentation method provides for the tracking of issues such as significance, status, elapsed time since first reported, individuals responsible for follow-up, causal factor analysis, and corrective action determination and implementation. The documentation process also provides for the trending of the issues such as their origin, scope, nature, significance and number, timeliness of resolution, and number and nature of corrective actions.

6. The CAP reporting and documentation process procedures provide for the communication of information regarding the safety and security issues, to include the status of resolution and implementation of corrective actions, to those responsible for the effective implementation of the CAP, to organizations and individuals affected by the issues, including the individual who initially reported the issues, and those within the organization responsible for assessing and correcting the issues.

#### C. Significance Assessment and Causal Evaluation of Safety and Security Issues

The licensees' assessment of the actual and potential significance of issues enables it to appropriately apply its graded risk approach, based on the issues significance, to the timing and scope of response to the issues, including the depth and detail of the causal evaluation. The licensees' application of its causal evaluation process routinely enables it to adequately identify issue causes related to all issues and the contributing factors and root causes of the issues of greatest significance.

The CAP policies, programs and/or procedures ensure that:

1. After the report of a safety or security issue, an initial assessment of the actual or potential significance of the issue is performed to determine if immediate corrective action is warranted to

prevent or mitigate an actual or potential unacceptable consequence. The issue is also evaluated to determine if NRC regulations as described in 10 CFR Parts, 20, 21, 30, 40, 70,76 or other relevant parts, or the license require that the issue be reported to the NRC or the NRC must be otherwise notified of the issue, or a related condition, fact or circumstance. The necessity to report or otherwise notify the NRC of an issue or a related condition, fact or circumstance should continue to be considered as the issue significance assessment and causal evaluation progresses.

2. The significance assessment procedure describes how to assess the safety or security issues significance, assign a significance category or level to the issue, assign the level and priority of the response required to follow-up and evaluate the causes of the issue, and document the significance determination results in the CAP document system. A graded risk significance determination approach may be implemented to identify issues with a more direct, significant health, safety or security impact on the public, workers or the environment to ensure these issues are assigned the highest significance category or level and associated response, including the depth and detail of the causal evaluation and corrective actions. For those issues assigned the lowest significance category or level, the focus may be on correcting the immediate or most apparent cause based upon the known facts related to the issue without conducting an in depth causal evaluation and root cause determination. A more formal causal evaluation is performed to identify the causal factors and root causes of the more significant safety and security issues.

3. The significance of an issue is reassessed and amended if the information collected during the follow-up and causal evaluation indicates that the initial significance designation was not appropriate.

4. The formal causal evaluation for the more safety significant safety and security issues begins as soon as possible to preserve evidence and data and to reduce the deterioration or loss of information. The formal causal evaluation procedures ensure that individuals who perform causal evaluations have the technical experience and qualifications necessary to evaluate the safety and security issues and identify the causal factors and root causes of the issues; that information and evidence collected to establish the facts associated with the issues is analyzed and validated for accuracy; staff performing the evaluations are capable and able to identify the causal factors that contributed to the issues and the issues root causes such that, if corrected, will prevent the issues recurrence; and the relevant information, evidence, and the causal factors and root causes is documented in the CAP document system and preserved for future reference as appropriate.

5. The formal causal evaluation process implemented for the more significant safety and security issues includes an evaluation of the relevance of the safety and security issues and their causes to other areas of the facility. These additional evaluations should include an evaluation of the extent-of-condition, extent-of-cause, or other generic implication evaluations as deemed appropriate by the graded risk significance process and the circumstances of the issue.

#### D. Development and Implementation of Corrective Actions for Each Issue

The licensees' identification and implementation of corrective actions is timely and routinely effective in preventing the recurrence of the same issue or the occurrence of similar safety and security issues, and is most effective in preventing the recurrence of issues of the greatest significance.

The CAP policies, programs and/or procedures ensure that:

1. Corrective actions are developed, prioritized, approved, tracked, and completed in a timely manner, to effectively resolve and prevent recurrence of each safety and security issue, commensurate with the significance of the issues, as determined by the graded risk significance process and the corrective actions complexity. Corrective actions specifically address the contributing factors and/or root causes identified from the causal evaluation determination.
2. The efficacy of each corrective action is verified; its applicability to other processes, operations and areas of the facility is assessed to prevent the occurrence of the same or similar issues; and its impact on other facilities, operations, equipment and personnel is assessed to ensure the corrective action does not result in an undesired consequence.
3. Corrective actions are achievable, measurable, and closeable. Individuals are assigned the responsibility for the corrective actions implementation, and establishing a schedule for initiating, completing and implementing each corrective action. If a corrective action will take an extended period of time, interim, compensatory measures are developed to reduce the probability of recurrence or mitigate the consequence of the safety or security issue should it recur.
4. Management receives periodic briefings and/or reports on the status of corrective actions. Information on the status of the corrective actions for the more significant safety and security issues that require numerous, complex and/or long term corrective actions is provided on a frequent basis to allow management to make adjustments to resources to ensure these issues are timely and appropriately corrected.
5. A clear and comprehensive description of each corrective action is recorded in the CAP document system and this information is used to track and trend corrective action status, completion and effectiveness. The corrective action tracking process provides readily accessible information to support the appraisal, analysis and reporting of the status of corrective actions.

E. Assessment of Corrective Action and Program Effectiveness

The licensees' implementation of its CAP results in the identification and implementation of effective corrective actions and the recognition and resolution of ineffective corrective actions. The licensee implements a CAP assessment process that enables it to identify and correct CAP performance issues that reduce CAP effectiveness in the identification, reporting, assessment and correction of safety and security issues and the prevention of the recurrence of the same issues or occurrence of similar issues.

The CAP policies, programs and/or procedures ensure that:

1. When a corrective action has been fully implemented, the completion of the corrective action is verified and its effectiveness in successfully resolving all apparent contributing and root causes and preventing recurrence of the associated safety or security issue is assessed. The nature and scope of the corrective action effectiveness assessment may be determined by a graded approach based on the complexity and significance of the safety or security issue and corrective actions. If a corrective action was determined to be ineffective, the causal factors analysis is reassessed and additional corrective actions necessary to successfully resolve the issue and prevent recurrence are identified and implemented. The reasons the original causal

factor evaluation or corrective action determination process failed to identify and implement an effective corrective action are determined and the processes should be amended to improve their performance as indicated by the results of this assessment.

2. Identified safety and security issues and their associated causes, corrective actions, and other relevant information are tracked and trended to assist in the identification of repeat occurrences, generic issues and CAP problems, such as corrective action determination and implementation timeliness, that impact its effectiveness. The trending process should be applied at the lowest level to identify trends that may lead to more serious safety and security issues. The trend data is periodically reviewed, analyzed, and summarized in a report, and disseminated throughout the organization as deemed appropriate to assist in review and follow-up. The issue and its resolution is documented in the CAP document system and trended so that similar problems are recognized and additional corrective actions are identified and implemented to prevent recurrence.

3. Assessments of the CAP effectiveness in identifying and documenting safety and security issues, assessing the significance of safety and security issues, responding to the issues and conducting follow-up and causal factors evaluations, developing and implementing corrective actions, confirming completion and assessing the effectiveness of corrective actions, and tracking and trending the information contained in the CAP document system to ensure the overall effectiveness of the CAP are performed. A formal assessment process that describes the CAP elements and processes to be assessed and has clearly defined acceptance criteria for determining effectiveness of the elements and processes reviewed should be established. Routine CAP effectiveness assessments may be performed using properly qualified staff within the CAP organization; however, periodically, an independent assessment performed by individuals who are not a part of the local organization should be performed. The licensee will take action to ensure the timely and effective correction of CAP issues identified by these routine and periodic assessments that impact the programs ability to prevent recurrence of safety and security issues.