



Recovery Plan  Excellence
Getting better all the time.

**Donald C. Cook Nuclear Plant
Corrective Action Program
Road to Excellence**

Events

Plant events require a systematic approach to recovery. A formal Recovery Plan focusing on six areas was established.

Inconsistent operational performance during the last several years at Cook Nuclear Plant has required extensive corrective actions. Some of the corrective actions were not effectively implemented, resulting in repeat events. A review of these events revealed an underlying common cause. This common cause was an ineffective Corrective Action Program.

An ineffective Corrective Action Program significantly impacts the ability of Cook Nuclear Plant to develop into a self-improving learning organization and implement the Prevention-Detection-Correction model. A Self-Improving Culture and Learning Organization, and the Prevention-Detection-Correction model, are primary elements required for improved performance of Cook Nuclear Plant.

As a result of Cook Nuclear Plant's performance history, Mano Nazar, Senior Vice President and Chief Nuclear Officer for American Electric Power, directed the development of a Recovery Plan that focuses on six key areas:

- *Operational Focus*
- *Design Basis*
- *Human Performance*
- *Organizational Effectiveness*
- *Equipment Reliability*
- *Self-Improving Learning Organization*

Corrective Action Program

Since the Corrective Action Program has a crosscutting impact on all areas of the Recovery Plan, significant focus is placed on improvement.

Cook Nuclear Plant's Corrective Action Program is a cornerstone program and is the cross-cutting element that supports implementation of all six focus areas of the Recovery Plan. An effective Corrective Action Program is essential for the station to build the foundation necessary for recovery and the transition to excellence.

Through benchmarking with other nuclear facilities, the Institute of Nuclear Power Operations, and Nuclear Regulatory Commission's requirements, a picture of excellence was developed for an effective Corrective Action Program with thirteen Critical Attributes.

Picture of Excellence

A picture of an excellent Corrective Action Program was developed by using INPO attributes and benchmarking industry best programs.



Critical Attribute Analysis

A systematic approach assessed the current CAP against the picture of an excellent CAP. The result was a Critical Attribute Analysis that was used as input to the CAP Recovery Plan.

It was necessary to establish the Corrective Action Program Picture of Excellence with the Critical Attributes in order to assess the current state of Cook Nuclear Plant's Corrective Action Program. A multi-discipline team was formed to perform a Critical Attributes Analysis. This analysis identified the gaps between the current and desired excellent corrective action programs.

The Critical Attributes Analysis identified gaps that were categorized into three areas.

- Process:** Gaps associated with program infrastructure, such as procedure, training, and tools.
- Culture:** Gaps associated with organizational behaviors, attitudes, and values.
- Legacy:** Gaps associated with long-standing, non-cultural issues.

Interim Actions

Immediate actions were taken to prevent further degradation of the current CAP in the area of quality and timeliness while developing the CAP Recovery Plan.

Actions were then created to address the identified gaps. Several of the actions were implemented immediately to effect a positive step change in the Corrective Action Program. The actions implemented immediately were interim actions designed to bolster the Corrective Action Program while the Corrective Action Program Recovery Plan was developed. The interim actions, along with other stop-gap measures already in place, would prevent further degradation of the Corrective Action Program. Key interim actions implemented are described below.

Two Step Screening Process – The Condition Report screening process was revised by adding a second screening meeting performed by members of senior management (Site Vice President, Plant Manager, and department managers). This second screening by the senior leadership team results in an increased involvement and oversight of the Corrective Action Program by senior management.

Engineering Fix It Now Team – An Engineering Fix It Now Team was established to provide a dedicated engineering resource to respond to emergent issues. This dedicated resource reduces the distractions to the engineering organization to allow engineering to focus on corrective action timeliness and quality.

Increased Leadership Focus – Corrective Action Program performance indicators have been established for use in the daily Leadership Meeting that focuses on timeliness and quality of corrective actions and evaluations.

Expanded Corrective Action Review Board Role – The Corrective Action Review Board's role has been expanded to include monitoring the Corrective Action Program health in addition to the review of selected corrective action products. The board will use established performance indicators, self assessments, and other indicators of the health of the Corrective Action Program.

Root Cause Evaluation

A root cause evaluation was performed due to and ineffective CAP which included a detailed gap analysis and aligned the results with the critical attribute analysis.

Early indications of Corrective Action Program implementation weaknesses were identified by external organizations beginning in 2002. A root cause evaluation was performed following the Nuclear Regulatory Commission's Problem Identification and Resolution Inspection in April 2002. The 2002 root cause evaluation generated corrective actions to address the degrading performance.

Subsequent to the completion of the root cause, the station experienced a number of planned and forced outages that resulted in a decreased focus and oversight on the implementation of Corrective Action Program initiatives. Indications of a degrading Corrective Action Program continued. In October 2003, a condition report was initiated to evaluate the continued declining performance of the Corrective Action Program. This condition report was screened as a significant condition adverse to quality.

The root cause evaluation concluded that there were two operative root causes:

1. A failure of management to maintain a strategic focus on Corrective Action Program performance during periods of competing priority from plant events.
2. A failure of evaluators, implementers, approvers, and supervisors to recognize the value of peer checking to ensure and reinforce quality standards and consistent program implementation.

Corrective actions were developed to establish oversight of Corrective Action Program health as the responsibility of the Corrective Action Review Board. Additionally, corrective actions were developed to implement continuous strategic improvement through the use of the Cook Nuclear Plant Recovery Plan.

CAP Recovery Plan

Using the critical attribute analysis, gap analysis, and root cause evaluation, a CAP Recovery Plan was developed.

A Corrective Action Recovery Plan was created to establish the foundational health of the Corrective Action Program. The recovery plan was developed using inputs from the Critical Attributes Analysis and the root cause analysis recently completed. The goal of the Corrective Action Program Recovery Plan is to become a cornerstone program that fosters a self-improving learning organization. The expected improvement is that departments demonstrate ownership of the Corrective Action Program by embracing its use to make improvements in plant performance.

The Corrective Action Program Recovery Plan is one of ten plans in the Self-Improving Learning Organization focus area of the Site Recovery Plan. Other recovery plans in the Self-Improving Learning Organization that have a direct impact on the Corrective Action Program are:

- *Self Assessment*
- *Safety Conscious Work Environment/Safety Culture*
- *Benchmarking*
- *Learning Organization Attributes*
- *Operating Experience*

Implementation of the Corrective Action Program Recovery Plan will achieve the following results:

- Effective Senior Leadership oversight of the health of the Corrective Action Program.
- Organizational ownership of the Corrective Action Program at all levels with a recognized value of using the Corrective Action Program to improve station performance.
- Performance indicators established to monitor Corrective Action Program Effectiveness.
- Evaluations of conditions adverse to quality are performed in a timely manner with quality.
- Prescribed corrective actions are performed in a timely manner with quality.



To effectively communicate the importance of a sound CAP to Cook personnel and stakeholders, a communications plan was developed.

To ensure effective communication of our issues with the plant staff and other stakeholders, a communication plan was developed. The communication was performed using different methods. The key messages were provided to the director and leadership team. The messages were then rolled out to the plant staff through department and section staff meetings. The messages have also been communicated during All-Hands Meetings and the Plan-It newsletter. The key messages of the communication plan were:

1. Cook Nuclear Plant has a new senior and site vice president who are committed to continuous improvement using the Corrective Action Program. A proven approach to recovery is being established that maximizes prevention and detection, provides a leadership model and accountability, and is sustainable.
2. The current station performance is caused by an ineffective Corrective Action Program due to ineffective, overdue, and improperly closed out corrective actions and evaluations.
3. The importance of the Corrective Action Program is to drive Cook Nuclear Plant to performance excellence. As such, effective monitoring of corrective action performance will be established.



Periodic effectiveness reviews against the established forecast. Adjust CAP Recovery Plan as necessary.

The Corrective Action Program Recovery Plan represents a roadmap to an effective Corrective Action Program. The actions defined in the recovery plan were developed using a systematic approach. To ensure the recovery plan is meeting the expectation to improve the effectiveness of the Corrective Action Program, periodic reviews will be performed by the Corrective Action Review Board.

The Corrective Action Program health has improved since implementing the interim measures and actions from the Corrective Action Program Recovery Plan. Noticeable improvements have been made in prioritization of evaluations and corrective actions based on significance, completion of evaluations and corrective actions prior to due dates, and effective monitoring of the Corrective Action Program.

While the improvements noted are promising, we have not made the progress we had anticipated. Accordingly, we are adjusting our Corrective Action Program Recovery Plan to place more focus on reducing the backlog of condition reports, implementing an effective trending program, improving the self-identification ratio of condition reports, improving the effectiveness of problem resolution, and eliminating a backlog of effectiveness reviews. With the increased focus in these areas, we project that we will have a fully functioning and effective Corrective Action Program by the end of the second quarter of 2004.

With the completion of the activities in the Corrective Action Program Recovery Plan, the foundation will be established for transition to the Corrective Action Excellence Plan. A transition team is currently being staffed to identify the actions needed to take the recovered Corrective Action Program to the next level. The goal is to establish and commence implementation of the Corrective Action Program Excellence Plan in the third quarter of 2004.

