



# QUALITY ASSURANCE PLAN

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## Section 1 Overview

The Na Ali'i team is committed to providing the highest degree of performance and product quality through continuous assessment and review of compliance with written standards, processes, and policies. Management overview assures management awareness of and support for the Na Ali'i Quality Assurance Surveillance Plan (QASP). Quality Control (QC) is maintained through rigorous inspection and reporting of deliverables' compliance with the Na Ali'i Quality Control Plan (QCP). Figure 1 illustrates the Na Ali'i continuous improvement process that encompasses all aspects of our QASP.

### CONTINUOUS IMPROVEMENT FLOW DIAGRAMS

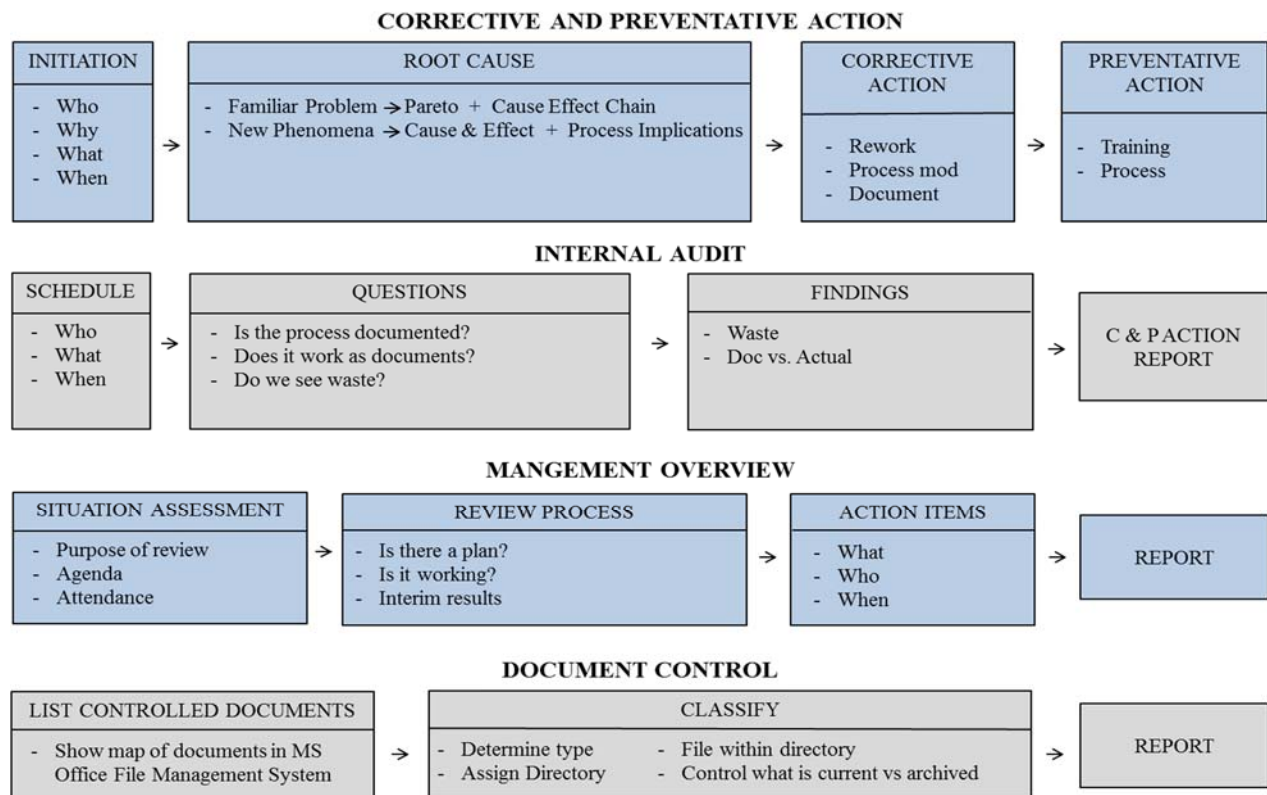


Figure 1: Continuous Improvement System Diagram

### 1.1 Inspection System

A thorough review of all deliverables for accuracy and timeliness is performed to ensure compliance with project requirements. Periodic reviews of all services to be delivered during execution of the project are scheduled. Additionally, unscheduled reviews and inspections are held at each facility.

Management reviews all reports and may initiate further corrective action as required. In addition, management may initiate actions related to the QASP at discretion. Actions may be an informal conversation or more formalized. Formal management oversight entails a meeting with relevant stakeholders, with specific action-oriented agenda items determined by management. Attendees are notified of time, date, and subject matter by email.

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In concluding a management oversight meeting, management assigns action items. The action items are documented in an email to responsible staff members and others who are part of the process. The email specifies the process that the action affects, the responsible staff member, completion criteria, and a follow-up schedule.

### 1.2 Follow-up Procedures

Corrective Action Reports (CAR) are issued when required to initiate monitoring and review of processes and procedures. Corrective actions taken are logged and reported in the project monthly reports. QC metrics are analyzed and utilized to monitor and improve processes.

### 1.3 Documentation

All inspection items requiring a management review have, at a minimum, the documentation in bullets below. These documents are kept for the life of the project and are included as deliverables for the Government customer at the end of the project.

- Corrective and Preventive Action reports
- Internal Audit reports
- Project execution reports
- Training reports
- Bid and Proposal debriefing reports
- Document Control reports

### 1.4 Record Keeping

The records of inspections will be kept and made available to the Government, when requested, throughout the performance period, and for a period after completion, until final settlement of any claims under the contract.

## **Section 2 Corrective and Preventive Action Process**

### 2.1 Introduction

Corrective and preventive actions lie at the heart of the Na Ali'i Quality Management System. They are the formal mechanism that operates side-by-side with continuous improvement. Corrective action occurs whenever a process:

- Is found to impede a product's ability to meet or exceed customer requirements, or
- Is not as efficient as it should reasonably be.

The corrective action process flow is shown in Figure 1.

### 2.2 Corrective Action Initiation

Corrective action may be initiated by any member of the Na Ali'i team. Corrective action may be formal or informal. Informal corrective action is as simple as seeing a concern and addressing it or having a conversation that leads to addressing the concern. Formal corrective action is initiated by filling the Action Request Description part of a Na Ali'i Corrective Action Form. This part provides a narrative description of the concern, along with any relevant particulars that are known to the requestor. The initiated form is sent by email to the Na Ali'i Quality Manager, who assigns a serial number, logs the request, identifies the Na Ali'i staff member responsible for completing

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the corrective action, and sets a schedule for interim steps. The responsible staff member may call on any Na Ali'i staff member for assistance in completing the corrective action.

### 2.3 Root Cause Determination

Root cause determination begins by asking whether the concern is familiar and has previously been addressed. If so, the determination includes a review of the root cause and corrective actions that were used before. If the root cause was correctly identified and corrective action was effective, a continuation of the previous solutions may be appropriate.

If the concern is new or persistent, the responsible staff member, in cooperation with the Na Ali'i Quality Manager, will drill deeper. Steps that might be taken include:

- Build a cause-and-effect chain, working through:
  - Proximate cause
  - Underlying causes
  - Equipment issues
  - Process issues
  - Management issues
- Develop an understanding of how the root cause promulgates through the process to result in non-compliance or inefficiency.

Having made the best possible determination of root cause, the responsible Na Ali'i staff member proceeds to develop a corrective and preventive action plan.

### 2.4 Corrective Action

Corrective action planning comprises immediate steps that resolve the particular incident leading to corrective action. Examples of corrective action are:

- Repair work in process
- Repair or replace equipment
- Scrap work in process
- Modify a process
- Modify a process description.

### 2.5 Preventive Action

Preventive action planning addresses the root cause of a concern. Effective preventive action should:

- Prevent a recurrence of the concern
- Reflect the insights gained from root cause determination
- Avoid adding any unnecessary process complication.

### 2.6 Report

The corrective action is closed by the responsible staff member working in cooperation with the Na Ali'i Quality Manager to:

- Complete the Na Ali'i Corrective Action Form
  - Review the request to see if the concern was addressed
  - Review root cause determination to see if the action drilled deeply enough

- Document corrective and preventive actions that were assigned
- Identify Na Ali'i staff member responsible for carrying out the corrective and preventive actions
- Notify all concerned parties on the actions to be taken
- Monitor execution of the corrective and preventive actions for adherence to plan and schedule
- Indicate and date closing the corrective action when corrective and preventive actions are completed
- File the corrective action in a database and update the corrective action log to show completion date.

## **Section 3 Internal Audit**

### **3.1 Introduction**

Internal audits provide confirmation that the Na Ali'i quality system is continuing to function as intended and serve as an instrument of continuous improvement. The internal audit process flow is shown in Figure 1.

### **3.2 Internal Audit Schedule**

Every part of the Na Ali'i Quality System is audited internally at least once per calendar year. A schedule of internal audits is maintained by the Na Ali'i Quality Manager. The internal audit schedule is filed under the Na Ali'i Quality Management System Index. The schedule identifies what part of the system is to be audited, the process owner who will be audited, the scheduled date range for start and finish, and the Na Ali'i staff member who will conduct the audit. The auditor may call on any Na Ali'i staff member for assistance in performing the audit.

### **3.3 Audit Questions**

Audit questions generally fall into the following categories:

- Does the actual process agree with how the process was planned to function?
- Does the process result in meeting customer needs?
- Is the process wasteful or inefficient?
- Are measurements used to control the process and are measurements properly calibrated or otherwise validated?

Prior to the audit, the auditor agrees to a specific date and time with the process owner and provides the process owner with a list of questions that are likely to come up in the audit.

During the audit, the auditor collects factual information that enables a detailed assessment of any issues or concerns that surface. Answers to questions are entered into a computer document during the audit and incorporated into a brief summary report.

### **3.4 Findings**

If the audit points to deficiencies in the Na Ali'i Quality System, the auditor requests a corrective action and identifies the request in an audit report. Subsequent actions follow the Na Ali'i Corrective and Preventive Action Process.

### 3.5 File Report

The audit report is filed in a computer audit database with cross references in each file to:

- Process audited
- Date of audit
- Auditor
- Process owner
- Corrective and Preventive Action Log, if applicable.

## **Section 4 Management Oversight**

### 4.1 Introduction

Management oversight ensures management awareness of and support for the Na Ali'i Quality System. The management oversight process flow is shown in Figure 1.

### 4.2 Initiating Management Oversight

Management comprises the Na Ali'i President (or delegate) and any person designated by the President for a given Management Oversight Process function. Management receives by email copies of:

- Corrective and Preventive Action reports
- Internal Audit reports
- Project execution reports
- Training reports
- Bid and Proposal debriefing reports
- Document Control reports.

Management reviews these reports and may initiate further action in any matter. In addition, Management may initiate actions related to the Quality System.

### 4.3 Review Process

The scope of a Management Oversight meeting is unrestricted. Typical agenda items include:

- Review a Quality System process
  - Is it working?
  - Interim results and prognosis
  - Are changes needed?
- Consider new initiatives

### 4.4 Action Items

In concluding a management oversight meeting, management assigns action items. The action items are documented in an email to the responsible staff member and others who are part of the process. The email specifies:

- Process that the action affects
- Responsible staff member
- Completion criteria
- Completion schedule.