

[CompanyName]

Design Quality Control Plan

[ProjectName]

[ProjectNumber]

Management acceptance

This Project-specific Design Quality Control Plan has been reviewed and accepted

Endorsed By: (Name / Title)	[DQCManagerName], Design Quality Control Manager		
Signature:	[DQCManagerName]	Date	[Date]
Revision History			
Version	Date	Notes	Approved by
0		Initial draft	[DQCManagerName]

The documents provided by [CompanyName] disclose proprietary company information that is copyright registered. Please hold these quality documents in confidence and do not share them with other organizations, even if you do not charge a fee.

PROJECT-SPECIFIC QUALITY PLAN

TABLE OF CONTENTS

The Project Quality Control Plan contents correspond with USACE / NAVFAC / AFCEA / NASA UFGS-01 45 00.00 10 (November 2016) Design Quality Control (DQC) Plan requirements.

Background Information	3
Customer	3
Project Name	3
Project Number	3
Project Location	3
Project Description	3
Project Scope	3
A. Design Quality Control Organization	5
Names, Qualifications, Duties, Responsibilities, and Authority of Design QC Personnel	6
Quality Responsibilities	6
B. Letters of Authorization	11
C. Procedures for Scheduling, Reviewing, Certifying and Managing Submittals	15
Submittal Scheduling	16
Designer of Record Review, Approval, and Certification	16
Transmittal of Submittals	17
Government Approval	18
D. Design Control, Verification, And Acceptance Procedures	22
Quality Design Plan	22
Discipline-specific Design Activity	22
Design Reviews	22
E. Procedures for Performing the Three Phases of Control	30
Phase 1: Preparatory Phase	30
Phase 2: Initial Phase	30
Phase 3: Follow-up Phase	31
Additional Preparatory and Initial Phases	31
F. Procedures For Tracking Deficiencies	37
Deficiency Controls	37
Deficiency Corrective Actions	37
Deficiency Preventive Actions	38
G. List of Definable Features	40
H. Completion Inspection	42
Punch-Out Inspection	42
Pre-Final Customer Inspection	42

Final Acceptance Customer Inspection	42
I. Documentation	44
Design Quality Records.....	44

Selected Pages
Not the Complete Plan

A. DESIGN QUALITY CONTROL ORGANIZATION

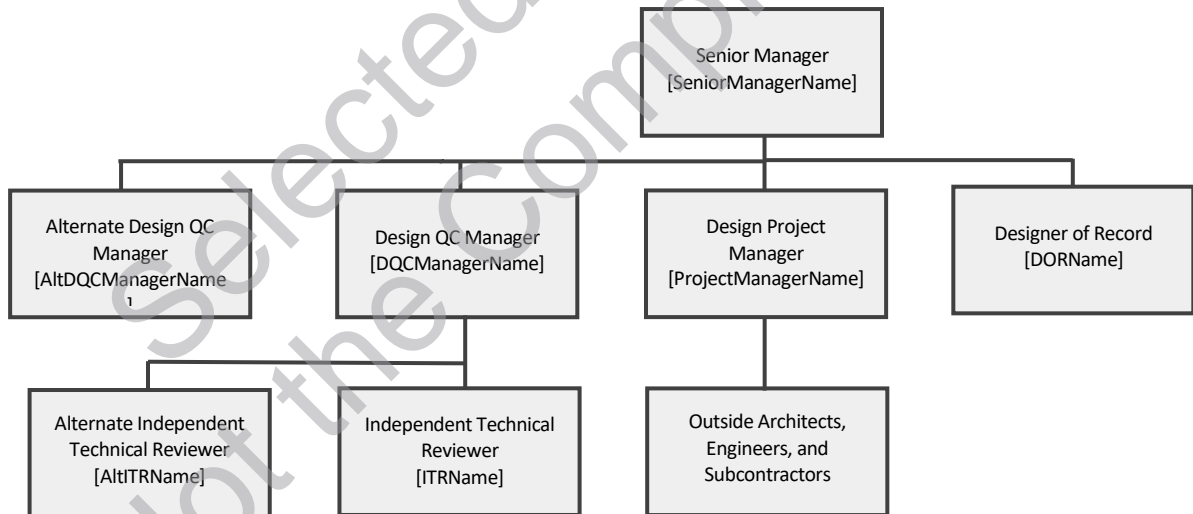
The Project Design QC organization Chart shows the Design QC organizational structure. The chart includes job positions along with the name of each person appointed to that position. Figure A-1 shows the Design QC organization Chart for this project.

The Senior Manager defines the organization chart for the project. The organizational chart includes job titles, names of assigned personnel, and organizational and administrative interfaces with the customer. The organization chart defines lines of authority as indicated by solid connection; dotted lines indicate lines of communication. The lines of authority preserve independence of quality control personnel from the pressures of production.

When a person with authority is unavailable only a person with higher authority may assume the responsibility of the unavailable person.

The Senior Manager assesses the qualification requirements for each position on the project organization chart, qualifications of each person, and then appoints only qualified persons to the project organization.

Figure A-1



B. LETTERS OF AUTHORIZATION

A Letters of Authorization to the Design Quality Control Manager and Alternate Design Quality Control Manager are included as exhibits in this subsection. The Letters are signed by an authorized official of [CompanyName] and describe the responsibilities and delegate sufficient authorities to adequately perform the functions of the Design QC and Alt DQC Managers, including authority to stop work which is not in compliance with the Contract.

Table B-1 lists the Design QC Personnel appointed to the project by the [CompanyName] Senior Manager.

Table B-1

Appointed Job Position	Design QC Personnel Name
Design Quality Control Manager	[DQCManagerName]
Alternate Design Quality Control Manager	[AltDQCManagerName]
Designer of Record	[DQCManagerName]
Design Project Manager	[ProjectManagerName]

[CompanyName] Design Quality Control Manager Appointment Letter

Project ID	[ProjectNumber]
Project Name	[ProjectName]
Appointed Design Quality Control Manager	[DQCManagerName]

Please be advised that you are hereby appointed as Design Quality Control Manager for the above referenced project. Your responsibilities include managing and implementing the [CompanyName] Quality System and the Project Contractor Quality Control (CQC) Plan regarding the referenced project. I assign you responsible for:

- Planning project quality controls required by the [CompanyName] quality systems and contract requirements
- Fully implementing all provisions of the [CompanyName] Quality System and related documents on the project.
- Manage the operation of the [CompanyName] Quality System on the project.
- Implement and manage all phases of quality control
- Communicating project-specific quality requirements to all affected departments, subcontractors and suppliers, and customers
- Ensuring that the Quality System is established and implemented by persons doing work that impacts quality
- Monitoring progress of activities
- Ensuring that the Quality System is maintained
- Acting as the project quality liaison with parties outside the company on matters relating to quality
- Reporting to senior management on performance of the Quality System, including needed improvements
- Review and approval of all project Quality System records
- Review and approval of project quality-related contract submittals
- Managing all project inspection and quality control activities
- Controlling corrective actions
- Resolving quality nonconformances

I grant you unrestricted authority for carrying out the above responsibilities including:

- Stopping work when continuing work adversely affects quality or covers up a defect
- Prevent the use of equipment or materials that would adversely affect quality or cover up a defect
- To direct the removal and replacement of any non-conforming work, equipment, or material by [CompanyName], any subcontractor, or any supplier.
- Suspend work and/or supply of materials by any staff member, subcontractor personnel, or supplier as deemed necessary to assure quality results.

Senior Manager signature and date:

[SeniorManagerName] / [Date]

COMPETENT PERSON STATEMENT

I am the designated Design Quality Control Manager capable and competent to carry out the responsibilities and authority as stated above.

Design Quality Control Manager signature and date:

[DQCManagerName] / [Date]

[CompanyName] Alternate Design Quality Control Manager Appointment Letter

Project ID	[ProjectNumber]
Project Name	[ProjectName]
Appointed Alternate Design Quality Control Manager	[AltDQCManagerName]

Please be advised that you are hereby appointed as Alternate Design Quality Control Manager for the above referenced project. Your responsibilities include managing and implementing the [CompanyName] Quality System and the Project Contractor Quality Control (CQC) Plan regarding the referenced project. I assign you responsible for:

- Planning project quality controls required by the [CompanyName] quality systems and contract requirements
- Fully implementing all provisions of the [CompanyName] Quality System and related documents on the project.
- Manage the operation of the [CompanyName] Quality System on the project.
- Implement and manage all phases of quality control
- Communicating project-specific quality requirements to all affected departments, subcontractors and suppliers, and customers
- Ensuring that the Quality System is established and implemented by persons doing work that impacts quality
- Monitoring progress of activities
- Ensuring that the Quality System is maintained
- Acting as the project quality liaison with parties outside the company on matters relating to quality
- Reporting to senior management on performance of the Quality System, including needed improvements
- Review and approval of all project Quality System records
- Review and approval of project quality-related contract submittals
- Managing all project inspection and quality control activities
- Controlling corrective actions
- Resolving quality nonconformances

I grant you unrestricted authority for carrying out the above responsibilities including:

- Stopping work when continuing work adversely affects quality or covers up a defect
- Prevent the use of equipment or materials that would adversely affect quality or cover up a defect
- To direct the removal and replacement of any non-conforming work, equipment, or material by [CompanyName], any subcontractor, or any supplier.
- Suspend work and/or supply of materials by any staff member, subcontractor personnel, or supplier as deemed necessary to assure quality results.

Senior Manager signature and date:

[SeniorManagerName] / [Date]

COMPETENT PERSON STATEMENT

I am the designated Design Quality Control Manager capable and competent to carry out the responsibilities and authority as stated above.

Alternate Design Quality Control Manager signature and date:

[AltDQCManagerName] / [Date]

**[CompanyName]
Designer of Record Appointment Letter**

Project ID	[ProjectNumber]
Project Name	[ProjectName]
Appointed Designer of Record	[DQCManagerName]

Please be advised that you are hereby appointed as Designer of Record for the above referenced project. Regardless of your other duties, I assign you responsible for

- Performing design work and/or overseeing the work of a design subcontractor.
- Ensuring achievement of project design quality objectives
- Ensuring that each design employee understands his or her quality responsibilities as well as [CompanyName] quality policies

I grant you unrestricted authority for carrying out the above responsibilities including:

- Stop work when continuing work adversely affects quality or cover up a design flaw
- Prevent the use of designs that would adversely affect quality or cover up a defect

Senior Manager signature and date:

[SeniorManagerName] / [Date]

COMPETENT PERSON STATEMENT

I am the designated Design Project Manager capable and competent to carry out the responsibilities and authority as stated above.

Design Project Manager signature and date:

[DQCManagerName] / [Date]

D. DESIGN CONTROL, VERIFICATION, AND ACCEPTANCE PROCEDURES

QUALITY DESIGN PLAN

The Design Quality Control Manager prepares a project-specific design review plan that includes:

- A listing of company and customer stakeholders; reviews they will participate in; and how their input will be used to amended design requirements. The project organization chart Includes interfaces between various groups and personnel for producing and reviewing the design.
- Major submittal dates and the QC review dates
- Design output deliverables, including required drawings, and engineering calculations
- Identification of who will perform design output verification activities and the criteria they will use.

DISCIPLINE-SPECIFIC DESIGN ACTIVITY

Each discipline-specific design activity is subject to the three phases of control and completion inspection described in the next subsection.

A listing of project design activities is included on the Quality Controlled Discipline-specific Design Activity List included as an exhibit in this subsection.

The Design Quality Control Manager identifies each phase of discipline-specific design activities that requires separate quality controls. Each design activity triggers a set of requirements for quality control inspections before, during and after the design activity.

Design controls are in place to assure the quality of designs for this project. A design plan is used to document the design control process. A Design Plan form exhibit is included in this subsection.

The first control point will be of the review of design inputs. The Designer of Record will assure that all necessary information is available to perform the required design work. The Designer of Record will also assure that expectations for design outputs are well defined.

Intermediate reviews will be carried out as indicated on the design control plan. The last review is the design output review. At a minimum, the design output review will be carried out by the An Independent Technical Reviewer designated for this project.

A record of all reviews will be recorded on the Design Review form. A Design Review form exhibit is included in this subsection.

The Designer of Record will control the design process with specific quality responsibilities, duties, and the authority to carry them out.

DESIGN REVIEWS

DESIGN INPUT REQUIREMENTS REVIEW

The Design Quality Control Manager ensures that the information in design inputs clearly defines customer expectations and that the necessary details are provided to set requirements for design.

The Design Quality Control Manager obtains design specifications from the customer and conducts a customer design input review to ensure that:

- Customer design input requirements and specifications are complete
- Design process review milestones are specified when necessary
- Customer design output requirements and specifications are complete for review milestones as well as the completed design
- Customer design requirements and specifications are compatible with the relevant regulations, [CompanyName] quality standards, and Quality System requirements
- [CompanyName] has the capability to deliver the completed design in the time allotted

The Design Quality Control Manager identifies supplemental design specifications that supplement customer specifications when they are needed to ensure a quality design.

Before design work begins, the Design Quality Control Manager makes sure that all design requirements are clearly understood, all discrepancies are resolved, and all requirements are agreed upon. Once these requirements are met, the Design Quality Control Manager approves the design input.

The Design Quality Control Manager ensures that design input documents are verified by qualified personnel. The person responsible must verify:

- Design input specification are approved by a customer authority
- Design input specifications are complete
- Design input requirements and specifications are compatible with the relevant regulations, [CompanyName] quality standards, and Quality System requirements
- [CompanyName] has the capability to deliver the completed project in the time allotted

DESIGN PROGRESS REVIEWS

The Design Quality Control Manager holds review meetings with interested parties at key design milestones. The Design Quality Control Manager identifies the key design milestones, the design output required for the review, and a list of reviewers.

Two design reviews are required: one is an input design review and the other is the final design review. The Design Quality Control Manager identifies other design reviews necessary to ensure a quality result. Design reviews may be specified at the completion of design features of work, site assessments, preliminary engineering, preliminary design, percentage completion stages, and on a calendar schedule.

The Design Quality Control Manager identifies customer and company reviewers appropriate for each design milestone. Reviewers may include persons that have a stake in any of the following: quality, safety, constructability, scheduling, maintenance, purchasing, estimating, or cost control.

At each review, the Design Quality Control Manager reviews reviewer recommendations for amendments to the design specifications. The Design Quality Control Manager submits selected design amendments for customer approval. Customer approved design amendments are design requirements.

DESIGN OUTPUT REVIEWS

The Design Quality Control Manager ensures that design output documents are verified by qualified Independent Technical Reviewer independent of the person performing the work. The person responsible must verify:

- The completed design meets requirements specified by the design input
- The completed design meets approved design amendments
- Engineering calculations are correct

[CompanyName] Design Review Form			
Project ID	Project Name	Design Review Ref#	Date
[ProjectNumber]	[ProjectName]		
Review milestone:		Performing Department/Crew/Architect, Engineer, and Subcontractor:	
Reference design documents under review			
Item #	Title or Description	Version / Issue Date	
Review recommendations			
Item#	Recommendation (reference supporting documents)	[CompanyName] Acceptance/ Rejection Signature / Date:	Customer Acceptance/ Rejection Signature / Date:
		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Approval not required
		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Approval not required
		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Approval not required
		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Approval not required

[CompanyName]
Discipline-specific Design Activity Checklist

Final Design Submittal

Project: Id#:

[ProjectNumber]

Project Name:

[ProjectName]

Add List of Rework Items Identified on the Initial Design Submittal to Checkpoints below. Verify that all rework and nonconforming items have been corrected.

☐☐☐☐☐

Reported Nonconformances should be added to the Nonconformance Report Form

Reported Deficiencies should be added to the Rework Items List Form

Verification of Design Activity Completion (sign and date)

Design Engineer Sign and date*:

Design activity verified complete to specifications (sign and date)

Independent Technical Reviewer Sign and date*:

Design activity verified complete to specifications (sign and date)

Design Quality Control Manager Sign and date*:

Design activity verified complete to specifications (sign and date)

* On behalf of the contractor, I certify that this report is complete and correct, and equipment used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.

G. LIST OF DEFINABLE FEATURES

Each feature of work is subject to the three phases of control and completion inspection described in the next subsection.

A listing of project features of work is included on the Quality Control Feature of Work List is included as an exhibit in this subsection.

The Design Quality Control Manager identifies each phase of construction feature of work that requires separate quality controls. Each feature of work triggers a set of requirements for quality control inspections before, during and after features of work.

Selected Pages
Not the Complete Plan

[CompanyName]
Quality Controlled Design Feature of Work List

Project ID	Project Name	Preparer	Date
[ProjectNumber]	[ProjectName]		

Project Features of Work / Contract Section	Quality Controlled feature of work	Method for identification of Approved Inspection Status
	Interim Design Submittal	Inspection Checklist
	Final Design Submittal	Inspection Checklist
	Design Complete Submittal	Inspection Checklist

I. DOCUMENTATION

The Design Quality Control Manager will verify the completeness, accuracy, and retention of project-specific design quality records. The Design Quality Control Manager will maintain current records providing factual evidence that required design quality control activities have been performed. These records will include the work of architects and engineers on an acceptable form that includes, as a minimum, the following information:

- The name and area of responsibility of the Contractor/Subcontractor.
- Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- Control activities performed with results and references to specifications/drawings requirements. The control phase (Preparatory, Initial, Follow-up) as well as a list of deficiencies noted, along with corrective action.
- Submittals and deliverables reviewed, with Contract reference, by whom, and action taken.
- Instructions given/received and conflicts in plans and specifications. r

DESIGN QUALITY RECORDS

On this project, [CompanyName] will keep records of specific design quality activities that occur through the duration of the design portion of the project.

Forms that will be used are shown as exhibits in each subsection. Additional design quality records, if any, will be maintained using forms listed in Table M-1.

Table M-1

Form	Description

Project design quality records will be stored in the design office. The exact location will be determined at quality coordination meeting.

DOCUMENT CONTROL PROCEDURE

Procedure:

1. The Responsible Person reviews and approves all controlled documents prior to release and is responsible for future control of the document. The Responsible Person records the title of the document, approval date, name, job position, and the method of document control: either 'hard copy' or 'computer file'. A record is maintained on the Project Document Control Form contained in this procedure.

2. When controlled documents are revised, the Responsible Person records the title of the document, the version, and date. Each subsequent document version cancels the previous versions of the document. The status of any controlled document can be verified by the Responsible Person.
3. The Responsible Person ensures that current issues of all documents are readily available at locations where activities essential to the effective functioning of the quality system are performed.
4. For distribution of controlled documents stored on computer media:
 - The Responsible Person designates one or more directory folders where all files in the folder are designated as either approved documents, current versions or controlled documents. Access to change or delete the files is restricted to the Responsible Person by password.
 - The Responsible Person removes obsolete versions of controlled documents from the directory folder.
5. Computerized records of controlled documents are backed up daily. Retrieval of backups can recover all controlled documents in effect as of any selected day.
6. Controlled documents stored on computer media are marked "Uncontrolled Copy When Printed" as the Responsible Person deems practical.
7. For the distribution of hard copies of controlled documents:
 - Only the Design Quality Control Manager is authorized to copy controlled documents.
 - When the Design Quality Control Manager distributes copies of controlled documents, the following record is made of the document: the version date, to which person it was distributed, and the document's location.
8. Uncontrolled copies are marked "Uncontrolled Copy"
9. When a controlled document is superseded:
 - The first page of superseded documents is destroyed or marked "VOID". The superseded document is removed from areas where quality inspection, test, or work is in progress.
 - The superseded document is replaced with a currently approved version of the document
10. Quality documents are stored in their original condition, in a suitable environment to prevent damage, deterioration and loss. Quality Records are readily retrievable for review upon request. Access to Quality system documents is not limited but is subject to normal building security.
11. Quality documents are stored for a period of seven years to demonstrate conformance to specified requirements and the effective operation of the quality system. No quality system document is destroyed without written approval of the Design Quality Control Manager.

PROJECT DOCUMENT AND RECORD CONTROL PROCEDURE

Procedure:

1. Project records completed by the person responsible for completing them, quality records are collected and filed. Any qualified person identified on Design Quality Control Plan can file the records.
2. Design quality records are stored in their original condition, in a suitable environment to prevent damage, deterioration, and loss. Design quality records are readily retrievable for review upon request. Access to Design quality records is not limited but is subject to normal building security.
3. Design quality records are stored for a period of seven years to demonstrate conformance to specified requirements and the effective operation of the quality program. No quality record is destroyed without written approval of the Design Quality Control Manager.
4. Design quality records are kept primarily as hard copy. When quality records are kept on a computer storage device, ability to enter information is password controlled and the computerized records are backed up on a regular basis.
5. Design Drawings are produced digitally and saved to the computer project file. .

**[CompanyName]
Document Control Form**

Project ID	Project Name	Responsible Person		
[ProjectNumber]	[ProjectName]			

Document Title	Version Identifier	Approved by	Approval Date	Document Distribution (Name / Organization)	Method of Control (hard copy or computer file)	Document Return Date
Design Quality Control Plan	Version Date or Report ID Number					
Specifications	Version Date or Report ID Number					
Discipline-specific Inspection Checklists	Version Date or Report ID Number					
Interim Design Submittal	Version Date or Report ID Number					
Final Design Submittal	Version Date or Report ID Number					
Design Complete Submittal	Version Date or Report ID Number					
Rework Items	Version Date or Report ID Number					
Nonconformance Reports	Version Date or Report ID Number					
Meeting Notes	Version Date or Report ID Number					
Three Phases of Control Reports	Version Date or Report ID Number					