



Clark County Department of Building & Fire Prevention

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SUBJECT: TG-15-2014 QUALITY SYSTEMS MANUAL

1.0 PURPOSE: BAC 22.02.530(A) - To perform special inspections as set forth in the technical codes, a Quality Agency must be approved by the Building Official. The Building Official shall establish rules and regulations for approval. Rules and regulations for the quality systems manual shall be contained in technical guidelines.

2.0 SCOPE: This guideline lists the information and forms that are required to be in the Quality Systems Manual. This guideline also states the minimum quality system requirements of the agency to ensure compliance with the BAC and Technical Guidelines.

3.0 ABBREVIATIONS & ACRONYMS:

- ASTM:** American Society for Testing and Materials
- BAC:** Building Administrative Code of Clark County
- CCBD:** Clark County Department of Building
- QA:** Quality Agency
- QSM:** Quality Systems Manual
- TG:** Technical Guideline

4.0 DEFINITIONS:For the purposes of this technical guideline, certain terms, phrases, words and their derivatives shall be construed as specified in this section and the Building Administrative Code of Clark County.

Quality Systems Manual: A manual composed of a series of documents that contain policy statements, procedures, reporting requirements and personnel qualifications. The QSM defines the procedural responsibilities to ensure the operations are completed, reviewed and documented.

5.0 REFERENCES:

- ASTM E 329: Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction
- ASTM E 543: Standard Practice for Agencies Performing Nondestructive Testing
- International Standards Organization (ISO)
 - ISO/IEC 17020: General criteria for the operation of various types of bodies performing inspection
 - ISO/IEC/EN 17025: General Requirements for the Competence of Calibration and Testing Laboratories
- Southern Nevada Building Code Amendments
- Technical Guideline 16 Quality Agency Obligations
- Technical Guideline 17 Minimum Approval Criteria for Special Inspectors and Other Personnel

APPROVED DATE: OCTOBER 10, 2014

EFFECTIVE DATE: NOVEMBER 1, 2014

Revised By:	Concurred By:	Approved By:
<i>Brian Lenihan</i>	<i>David L. Durkee</i>	<i>Theodore L. Droessler</i>
Brian Lenihan, P.E. Senior Engineer	David Durkee, P.E. Principal Engineer	Theodore L. Droessler, P.E. Manager of Engineering

6.0 RESPONSIBILITIES:

6.1 Quality Agency:

- 6.1.1 An agency seeking approval status must submit to CCBF for review and approval a Quality Systems Manual (QSM).
- A QSM shall be prepared in accordance with Section 7.0 of this TG.
 - The QSM shall be approved in writing by a company officer, quality control manager and the engineering manager.

6.2 Clark County Department of Building

- 6.2.1 CCBF personnel shall review a QSM for compliance with this document.

7.0 PROCEDURE: An agency shall submit a QSM in accordance with Sections 7.1

- 7.1 The QSM shall be prepared in accordance with ASTM E 329 and ASTM E 548. Firms accredited in accordance with ISO standards 17020 and 17025 meet the intent of ASTM E 329 and ASTM E548.

7.2 QA engaged in inspection services shall prepare a QSM as specified herein:

- 7.2.1 The agency shall provide a title sheet with the agencies contact information, manual date, and revision history

- 7.2.2 The agency shall provide a table of contents, with the sections 7.2.3 through 7.2.9 identified.

7.2.3 Organization of the Agency:

- Description of the organization including complete legal name and address.
- Incorporation documents.
- All branch offices of the agency, and the principal officers and directors of those offices, shall be included when approval is sought for those offices.
- External organizations, organizational components and their functions that are utilized for significant supporting technical services shall also be included.

7.2.4 Organization History:

- A brief history of the agency and a general description of the types of users of the organizations services shall be provided.

7.2.5 Organization Charts and Functions:

- A functional description of the agency's organizational structure, operational departments, support departments, and services shall be included. This shall be demonstrated in the form of chart. Lines of responsibility, authority, and supervisory accountability must be clearly detailed.

7.2.6 Human Resources of The Agency:

- Minimum personnel qualifications contained in the QSM shall be in accordance with Technical Guideline 17.
- Training program that requires at a minimum quarterly education to ensure the continued competence of its personnel.
 - The quarterly training will contain ethics training, technical guideline review, code and standard review, and general inspection topics.
- Agency conflict of interest policy.
- Personnel conflict of interest policy.

7.2.7 Technical Services:

- The QSM must include the following statement, "Inspection and testing services for all projects shall be performed per the International Building Code, technical guidelines, technical codes, and any applicable referenced standards for the code year in which projects were approved. The agency shall comply and perform their services in compliance with the codes, policies, and guidelines of the authority having jurisdiction."
- Final report certificate of compliance templates, form 843 & 844, in compliance with the requirements of TG-50.

- Inspection forms in compliance with the requirements of TG-50 and TRG-Daily.

7.2.8 **Material Resources of the Agency:**

- Calibration and testing program for all field and laboratory equipment.
- A list of building codes and standards that are in the QA office.

7.2.9 **Quality Systems of the Agency:**

- **Internal Personnel Audit**
 - Internal Special Inspection Audit form in Appendix B is required to be in the QSM.
 - Provide an inspector audit summary form.
- **Internal Project Audit**
 - Internal Project Audit form in Appendix C is required to be in the QSM.
 - Provide an internal project audit summary form.
- **Internal Office Audit**
 - Internal Office Audit form in Appendix D is required to be in the QSM

7.0 RECORDS:

7.2 **CCBD**

- Department of Building adheres to the Clark County record retention program, managed by the Records Division.

7.3 **QA**

- The QA shall retain copies of all reports, audits, and data and make available to CCBD when requested or audited.

8.0 ATTACHMENTS:

9.0 Appendix A In-house Training Record

Appendix B Internal Project Audit

Appendix C Internal Personnel Audit

Appendix D Internal Office Audit

10.0 REVISION HISTORY:

Title	Revision/Approved Date	Effective Date
TG-15-2014	October 10, 2014	November 1, 2014
TG-15-2011	June 17, 2011	July 1, 2011
TG-15-2009	April 17, 2009	April 24, 2009
TG -15-2007	August 31, 2007	September 14, 2007
TG -15-2004	November 16, 2004	November 18, 2004
TG -15-2000	December 26, 2000	January 31, 2001

**APPENDIX A
(TG-15)**

In-house Training Records

In-house Training Record

Agency Name: _____

Annual Renewal Period (C-2014, A-2015, etc.): _____

In-house Training Number (One through Four): _____

In-house Training Date: _____

In-house Training Performed by: _____

In-house Training Topics: _____

The in-house training was performed pursuant to the Building Administrative Code of Clark County, Technical Guidelines TG-15, TG-16, TG-17, TG-20, TG-50, and ASTM E 329.

I, _____, the Quality Control Manager, has supervised and documented this in-house training.

Signature of the Quality Control Manager _____.

I, _____, the Engineering Manager, has directed and reviewed this in-house training. Content of the training complies with referenced documents.

Signature of the Engineering Manager _____.

Instructions: In-house training topics shall include administrative provisions related to special inspection activities contained in the agency's QSM, the Technical Guidelines, and the Building Administrative Code; and provisions contained in the technical codes. In-house training must be conducted on a quarterly basis, i.e., a minimum of four in-house training sessions must be performed.

**APPENDIX B
(TG-15)**

Internal Project Audit Results

Internal Project Audit Results

Agency Name: _____

Annual Renewal Period (C-2014, A-2015, etc.): _____

Audit Number (One or Two): _____

QA SIA Items for Permit: _____

QA SIA Items Audited: _____

Stage/Status of Project: _____

Permit Number: _____

Audit Date: _____

Audit Performed by: _____

Number of Photos: _____

The Audit was performed to verify compliance with the Building Administrative Code of Clark County, Technical Guidelines TG-15, TG-16, TG-17, TG-20, TG-50, and ASTM E 329.

I, _____, the Quality Control Manager, has supervised and documented this audit.

Signature of the Quality Control Manager _____.

I, _____, the Engineering Manager, has directed and reviewed this audit. All corrective actions were undertaken.

Signature of the Engineering Manager _____.

Instructions: The auditor(s) shall document audit findings. The agency's Quality Control Manager, Engineering Manager, and agency's management shall recommend appropriate corrective actions. The Engineering Manager shall ensure that the agency implement recommended corrective actions. This audit must be performed on a quarterly basis, i.e., a minimum of four audits must be performed.

1.0 The inspectors are approved for the special inspection category being performed at the time of the audit.

Auditor Initials _____

Inspector: _____ **Certification** _____ **Expiration Date** _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

2.0 In speaking with the inspector, they have verified that the permit covers the work in progress.

Auditor Initials _____ **Inspector:** _____

3.0 The inspector has notified CCBD of commencement of inspection of a job through filing a project start up form.

Auditor Initials _____ **Date of Startup Form** _____

4.0 The inspector has notified CCBD within one business day when the work does not have a permit or exceeds the scope of an active permit.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

5.0 Unless otherwise approved by the Building official or provided in the technical codes, the inspector is providing inspection on a continuous basis.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

6.0 The inspector is inspecting the work for conformance with approved construction documents, plan revisions, and supporting documents.

Auditor Initials _____

Inspector: _____ **Plan Sheets Used by Inspector** _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

7.0 The inspector is not utilizing construction documents for acceptance that do not carry the CCBD approval mark except as an aid to inspection.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

8.0 Daily reports are legible and signed by the inspector performing the work.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

9.0 The daily reports comply with the technical guidelines and the technical codes.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

10.0 Nonconforming items not resolved the same day, or about to be incorporated in the work, were recorded in a non-compliance report.

Auditor Initials _____

NCR # _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

11.0 The inspectors are maintaining a log of non-compliance reports and corrections in the project field file.

Auditor Initials _____

Attach Photos to Audit

**APPENDIX C
(TG-15)**

Internal Personnel Audit Results

Internal Personnel Audit Results

Agency Name: _____

Annual Renewal Period (C-2014, A-2015, etc.): _____

Audit Number: _____

Inspector Audited: _____

Permit Number: _____

Daily Report: _____

Audit Date: _____

Audit Performed by: _____

The Audit was performed to verify compliance with the Building Administrative Code of Clark County, Technical Guidelines TG-15, TG-16, TG-17, TG-20, TG-50, and ASTM E 329.

I, _____, the Quality Control Manager, has supervised and documented this audit.

Signature of the Quality Control Manager _____.

I, _____, the Engineering Manager, has directed and reviewed this audit. All corrective actions were undertaken.

Signature of the Engineering Manager _____.

Instructions: The auditor(s) shall document audit findings. The agency's Quality Control Manager, Engineering Manager, and agency's management shall recommend appropriate corrective actions. The Engineering Manager shall ensure that the agency implement recommended corrective actions. This audit must be performed on a semi-annually basis, i.e., a minimum of two audits must be performed per year.

1.0 The inspector is approved for the special inspection category being performed at the time of the audit.

Auditor Initials _____ **Certification** _____ **Expiration Date** _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

2.0 The inspector has notified CCBD of commencement of inspection of a job through filing a project start up form.

Auditor Initials _____ **Date of Startup Form** _____

3.0 The inspector has verified that the permit covers the work in progress.

Auditor Initials _____

4.0 The inspector has notified CCBD within one business day when the work does not have a permit or exceeds the scope of an active permit.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

5.0 Unless otherwise approved by the Building official or provided in the technical codes, the inspector is providing inspection on a continuous basis.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

6.0 The inspector is inspecting the work for conformance with approved construction documents, plan revisions, and supporting documents.

Auditor Initials _____ **Plan Sheets Used by Inspector** _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

7.0 The inspector is not utilizing construction documents for acceptance that do not carry the CCBD approval mark except as an aid to inspection.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

8.0 Daily reports are legible and signed by the inspector performing the work.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

9.0 The daily reports comply with the technical guidelines and the technical codes.

Auditor Initials _____ **TRG's Used** _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

10.0 Nonconforming items not resolved the same day, or about to be incorporated in the work, were recorded in a non-compliance report.

Auditor Initials _____ **NCR #** _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

11.0 The inspector is maintaining a log of non-compliance reports and corrections in the project field file.

Auditor Initials _____

12.0 Record of Correction Reports are generated as required by the special inspectors. Special Inspectors have attached the approved structural revision including any sketch, detail, engineering analysis, and calculations approved by CCBD that were needed to clear the non-compliance report.

Auditor Initials _____

13.0 The inspector is maintaining inspection reports, testing results and other project documents in the project field file.

Auditor Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

**APPENDIX D
(TG-15)**

Internal Office Audit

Internal Office Audit

Agency Name: _____

Annual Renewal Period (C-2014, A-2015, etc.): _____

Audit Date: _____

The Audit was performed to verify compliance with the Building Administrative Code of Clark County, Technical Guidelines TG-15, TG-16, TG-17, TG-20, TG-50, and ASTM E 329.

I, _____, the Quality Control Manager, has supervised and documented this audit.

Signature of the Quality Control Manager _____.

I, _____, the Engineering Manager, has directed and reviewed this audit. All corrective actions were undertaken.

Signature of the Engineering Manager _____.

Instructions: The auditor(s) shall document audit findings. The agency's Quality Control Manager, Engineering Manager, and agency's management shall recommend appropriate corrective actions. The Engineering Manager shall assure that the agency implement recommended corrective actions. This audit is required on an annual basis and must be performed during the last quarter of the agency's annual renewal period.

1.0 Quality Systems Manual

1.1 Version of Quality Systems Manual (QSM) being used by this agency is approved by CCBD.
 Current QSM in use by the agency:

Revision Number _____ **Date** _____

1.2 Approved QSM has been reviewed for this annual renewal period and found to be current and suitable for the type and scope of the agency’s approved services.

EM Initials _____

1.3 QSM revisions may be triggered by organizational changes, changes in the facility and equipment used during the performance of special inspection activities, new code cycle, etc.

QSM Revision Required? (Y/N) _____

If yes, was the revised QSM submitted to CCBD.? (Y/N) _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

2.0 Approval by CCBD

2.1 Agency only performs special inspection services for which it is approved.

EM Initials _____

2.2 Agency staffs project with Clark County approved personnel.

EM Initials _____

2.3 Agency has submitted required annual renewal Information.

EM Initials _____

2.4 Agency has submitted required annual renewal fees.

EM Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

3.0 Quality Management and Responsibilities

3.1 The agency has employed a Quality Control Manager (QM) on a continuous basis.

EM Initials _____

3.2 The agency has notified CCBD of any changes in the designated QM.

EM Initials _____

- 3.3 The Quality Control Manager has reviewed the reports generated by the inspection process in accordance with the QA QSM, the BAC, project requirements, and technical codes.
EM Initials _____
- 3.4 In-house training of personnel has been performed every quarter.
EM Initials _____
- 3.5 In-house training included administrative provisions related to inspection activities in the agency's QSM, the Technical Guidelines, and the Building Administrative Code; and technical provisions in the technical codes.
EM Initials _____
- 3.6 Copies of the latest CCBD Technical Guidelines have been distributed to agency's personnel.
EM Initials _____
- 3.7 The Quality Control Manager has performed audits of inspection activities prior to it being covered or incorporated into the work.
EM Initials _____
- 3.8 The Quality Control Manager or the designated auditor has performed an audit of all approved personnel on a semi-annual basis per TG-15.
EM Initials _____
- 3.9 The personnel audit summary report is up to date.
EM Initials _____
- 3.10 Additional in-house training was undertaken based on internal audit results, enforcement actions issued by CCBD staff, mandatory meeting results documented by CCBD, and/or outcome of an administrative hearing
EM Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

- 4.0 Engineering Management and Responsibilities (Prime Agency Only)
 - 4.1 The agency has employed and Engineering Manager (EM) on a continuous basis.
EM Initials _____
 - 4.2 The agency has notified CCBD of any changes in the designated EM.
EM Initials _____
 - 4.3 The Engineering Manager has supervised and performed a review that:
 - 4.3.1 The agency has complied with policies and procedures in the agency's QSM.
EM Initials _____

4.3.2 Personnel are inspecting the work performed and verifying that it is within the scope of the permit

EM Initials _____

4.3.3 Approved personnel are being correctly assigned to projects

EM Initials _____

4.3.4 The inspection process is accredited through participation in AMRL, CCRL, A2LA, LAB, NAVLAP, ISO, or IAS. (Circle all that apply)

EM Initials _____

4.4 The Engineering Manager has supervised the submittal of all required reports:

EM Initials _____

4.5 Two projects have been field audited in depth, with the photo documentation and paper work reviewed.

EM Initials _____ **Permit Number of Projects** _____

4.6 All equipment that is in use by the personnel are calibrated or placed out of service.

EM Initials _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

5.0 Reporting

5.1 Daily reports are generated as required by personnel

EM Initial _____

5.2 Non-compliance Reports are generated as required by personnel

EM Initial _____

5.3 CCBD is notified of the issuance of non-compliance reports as required

EM Initial _____

5.4 The agency has submitted required reports to CCBD as required in the Technical Guidelines and the BAC.

EM Initial _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

6.0 Assignment of Special Inspectors

6.1 Inspectors assigned on Clark County projects were approved by CCBD at the time of assignment.

EM Initial _____

6.2 personnel assigned on Clark County projects are trained and experienced in the performance of required inspection activities.

EM Initial _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

7.0 Review of Enforcement actions issued by CCBD

7.1 Did the agency receive an enforcement action during the renewal period? (Y/N) _____

EM Initial _____ (If yes, complete the following.)

7.1.1 Number of Enforcement Actions issued to Agency this renewal period. _____

7.1.2 The EM and QM have reviewed the enforcement actions. (Y/N) _____

7.1.3 The agency has submitted required written responses. (Y/N) _____

7.1.4 The agency has paid all assessed administrative fees. (Y/N) _____

EM Initial _____

Comments	
Deficiencies Noted	
Recommended Corrective Actions	
Corrective Actions Undertaken	

