##### CHAPTER 7

QUALITY MANAGEMENT

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**7.1 PURPOSE**

The purpose of the ***Quality Control Manager Training and Qualification Program*** is to set a specific level of knowledge and physical skills for the persons responsible for the management of quality control on Florida Department of Transportation highway and bridge construction projects.

**7.2 BACKGROUND**

This chapter contains course and qualification requirements for Department, Consultant, and Contractor Quality Management personnel responsible for Quality Control (QC) and Quality Assurance on the Department's transportation construction projects.

7.3 QUALIFICATION BY JOB FUNCTION

**7.3.1 Quality Control Manager:**

This is the individual who is identified in the Quality Control Plan to perform analysis and control of the quality of the product, can determine the coordination of production operations, quality pay factors, and understands the intent of statistically based quality control specifications (consistency, variability, data interpretation, and random sampling).

All persons acting as Quality Control Manager on behalf of the Contractor that work on a project with the QC Manager *Specification Section 105* must be CTQP QC Manager qualified.

7.3.2 Project Administrator:

All persons designated as the Department's Project Administrator representative that work on a project with the QC Manager *Specifications Section* 105 must have passed the CTQP QC Manager exam.

**7.4 QUALIFICATION AND COURSE**

**7.4.1 Quality Control Manager Qualification Requirements**

 All trainees seeking Quality Control Manager qualification must:

1. Pass the QC Manager Exam

1. Have at least one of the following Level 2 CTQP Training Qualifications: Asphalt Paving Level 2, Asphalt Plant Level 2, Earthwork Construction Inspector Level 2, Concrete Field Level 2 (full ACI-CTCI Certification), Concrete Laboratory Technician Level 2, Aggregate Laboratory Testing Technician, and Limerock Bearing Ratio Technician

These Level 2 Qualifications must be obtained prior to the QC Manager Exam or within one year following the Exam.

**7.4.2 Quality Control Manager Training Course**

This course shall consist of a two (2) day training class with a written exam.

The Quality Control Manager Course is designed to ensure that the Contractors' Quality Control Managers, as well as key Department personnel, gain a working understanding of the key quality control program elements. This course will also explain how to develop a QC Plan, and how the Department handles QC plans.

 **Prerequisites**

 Construction Math Self-Study

 **Written Exam**

There will be a written exam for the Quality Control Manager Course. It will be closed book and will have 50 questions. The examinations are electronically graded by the CTQP Administrator. The passing grade for this examination shall be 70%. Two weeks should be allowed for grading and posting of the examination results.

# **7.5 REQUALIFICATION**

The CTQP Quality Control Manager qualification does not require requalification. The qualification is indefinite, unless suspended in accordance with ***Section 7.6***.

# **7.6 SUSPENSION OF A QUALITY CONTROL (QC) MANAGER**

See **Sections 1.14.7 CTQP Qualification Revocation Based on Lack of Proficiency** and **1.14.8 CTQP Qualification Revocation Based on Falsification of Records.**

**7.6.1 Background**

Through the ***Construction Project Administration Manual (CPAM), Chapter 13.1***, the Project Administrator has the ability to initiate a ***Deficiency Letter (DL)*** as a direct result of deficient project quality control operations. While a ***DL*** may document deficient Prime Contractor quality control operations, it does not have an effect on the QC Manager’s CTQP qualification.

When the Resident Engineer sends a ***DL***that is directly related to the QC Manager’s failure to properly apply the Contractor’s QC Plan, specifications and Quality Control procedures, the ***DL*** must be sent to the QC Manager and the State Construction Training Coordinator for tracking purposes.

The QC Manager must maintain a current electronic mailing (e-mail) address with FDOT/CTQP.

This procedure details how the Department can document and (if necessary) suspend a QC Manager that is not performing required duties.

**7.6.2 QC Manager Suspension Process**

The QC Manager’s qualification shall be suspended when three ***DLs*** are issued within a twelve (12) month period regardless of the contract for which the ***DLs*** are issued. For example, ***DLs*** can be issued for the same contract or for different contracts.

1st Deficiency Letter

If no other ***DLs*** are issued within one year (365 days), then the record of the 1st ***DL*** shall be deleted from the QC Manager's qualification record.

2nd Deficiency Letter

If no other ***DLs*** are issued within one year (365 days) of the 2nd ***DL***, then the record of the 1st and 2nd ***DLs*** shall be deleted from the QC Manager's qualification record.

3rd Deficiency Letter

Suspension of QC Manager qualification (for all contracts). This decision may be appealed to the Director, Office of Construction. The Director, Office of Construction's decision is final.

The State Construction Training Administrator shall inform the CTQP Administrator to suspend the QC Manager's qualification via e-mail. The suspension shall be for one calendar year (365 days) from the 3rd ***DL***.

Prior to having the qualification reinstated, the technician must meet all initial QC Manager qualification requirements, including passing the QC Manager’s examination.

 The suspension letter shall be provided to the QC Manager, the QC Manager's supervisor (or prime contractor's representative), the CTQP Manager, the District Construction Engineer, Resident Engineer, and the project files. This suspension shall apply to the QC Manager qualification only.

**7.7 DEPARTMENT RESPONSIBILITIES**

Responsibilities for this qualification program are distributed among the State Construction Office and State Materials Office and are listed in ***CTQM*** ***Chapter 1***.

**7.7.1 Resident Construction Office**

Ensure that the QC Manager and State Construction Training Administrator are included in the distribution of Deficiency Letters that are quality control related.

**7.7.2**  **State Construction Office**

 Maintain a database of **DLs** and suspension letters.

 Maintain a database of current QC Manager addresses.

**7.7.3 QC Manager Technical Review Team (TRT)**

Review and recommend revisions to the manuals, training aids, examinations, and qualification procedure.