

## **CONTRACTOR QUALITY CONTROL GENERAL REQUIREMENTS (REV 11-30-20)**

SUBARTICLE 105-8.7 is expanded by the following:

### **105-8.7 Structural Concrete Production Facility Quality Control (QC) Personnel:**

Ensure that each portland cement structural concrete production facility (plant), has designated personnel including plant manager of QC, concrete mix designer, concrete batch plant operator, and testing technicians to provide QC inspections and testing.

Upon Department approval, the functions of the above positions may be performed by the same person when it can be demonstrated that the plant's operation and quality of concrete will not be detrimentally affected and personnel have the qualifications required herein.

**105-8.7.1 Plant Manager of QC:** Ensure that the plant manager of QC has at least three years of concrete related experience and the following training certifications:

1. CTQP Concrete Laboratory Technician – Level 1 certificate.
2. CTQP Concrete Field Technician - Level 1 certificate.
3. Concrete Batch Plant Operator certification in accordance with

105-8.7.4.

As alternatives to these certifications, the Department will accept, one of the following:

- a. Prestressed Concrete Institute (PCI) QC Personnel Certification Level III.
- b. Precast Concrete Pipe, Box Culverts, Drainage Structures or Incidental Precast Concrete Plants Level II QC Inspector Certifications.
- c. National Ready Mixed Concrete Association (NRMCA) Certified Concrete Technologist Level 2.

**105-8.7.2 Concrete Mix Designer:** Ensure that the concrete mix designer has the CTQP Concrete Laboratory Technician Level 2 certification. As an alternative, the Department will accept any of the following qualifications:

1. PCI QC Personnel Level III Certification, for concrete mix designs of prestressed concrete products.
2. National Ready Mix Concrete Association (NRMCA) Certified Concrete Technologist Level 3.
3. Any of the Level II QC certifications in accordance with 105-8.9.2.2.

**105-8.7.3 Qualified Testing Technicians:** Ensure that the testing technicians have the following certifications:

1. ACI Concrete Field Testing Technician Grade I, for personnel performing concrete plastic property tests and ACI Self-Consolidating Concrete Testing Technician if testing self-consolidating concrete (SCC).
2. ACI Concrete Strength Testing Technician, for personnel performing tests on hardened properties of concrete.

**105-8.7.4 Concrete Batch Plant Operator:** Ensure that the concrete batch plant operator has a CTQP Concrete Batch Plant Operator Certification. As an alternative, the Department will accept the following certifications:

1. Precast Concrete Structures Association (PCSA) Batch Plant Operator,

Dev105VM  
Use Only in Structural Concrete Class I and II  
Use with Dev346VM and DevMM9.2VM

2. NRMCA Certified Concrete Technologist Level 3, or
3. NRMCA Plant Manager Certification.

For dry cast concrete pipe and dry cast drainage structures, the Department will accept American Concrete Pipe Association (ACPA) Quality School Certification.

**105-8.7.5 Volumetric Mixer Operator:** Ensure that the concrete volumetric mixer operator has the following training certifications:

1. Concrete Batch Plant Operator certification in accordance with 105-8.7.4.
2. ACI Concrete Field Testing Technician Grade I in accordance with 105-8.7.3
3. Volumetric Mixer Operator Certification issued by the Volumetric Mixer Manufacturers Bureau (VMMB), which may be viewed at the following URL:  
<https://www.vmb.org/certifications.html>