

ODOT Inspection Certification Program

Overview

The Inspection Certification Program is one element of ODOT's Inspection Quality Assurance (QA) Program. The purpose of the Inspection Certification Program is to provide adequate training and resources for Construction Inspectors and to ensure consistent administration of highway construction contracts. The monitoring of construction activities by Certified Inspectors will promote industry best practice and will help to ensure quality materials and workmanship on ODOT construction projects.

The Inspection Certification Program will:

- Improve Contractor compliance with approved Plans and Specifications
- Ensure an appropriate level of knowledge among Construction Inspectors
- Provide clear and consistent expectations of Inspectors
- Improve the consistency of construction inspection practices
- Reduce construction claims and other contract disagreements
- Improve construction quality in the State of Oregon
- Comply with Federal requirements prescribed in Title 23 of the Code of Federal Regulations.

Inspection Certification Program

The Inspection certification Program requires that all inspectors on ODOT construction projects be certified. It is expected that all inspectors will be certified in General Construction Inspection and may obtain certifications in one or more discipline specific areas. These additional certifications are required when performing inspection duties in these areas. A description of the current certification areas is provided below.

The Project Manager is responsible for all inspection activities on a construction project and at times may need to supplement their Inspection workforce with non-certified personnel during periods of heavy construction activity. Therefore, the program makes allowances for the temporary use of non-certified inspectors. The following information outlines the activities that can be conducted by certified and non-certified inspectors.

Certified vs. Non-Certified Personnel

Activities that will be performed by Certified Inspectors include the following:

- Inspect the work as needed to ensure it conforms with the Plans and Specifications and Approved Changes
- Ensure Quality Control testing is being performed as required

- Inform Quality Assurance personnel of problems or potential problems with field-tested materials
- Record progress and/or delays with the work
- Ensure source documents allow proper payment to the Contractor
- Work with the Project Manager, Contractor, and others to troubleshoot problems with construction
- Provide clear direction and guidance to non-certified individuals that are assisting with monitoring the work
- Monitor the activities of non-certified individuals

When circumstances occur that prevent the use of a Certified Inspector the Project Manager may assign specific tasks to a non-certified individual. The Project Manager must ensure that non-certified personnel have a thorough understanding of their assigned duties. Non-certified personnel should review the applicable training and/or reference material before performing inspection activities.

Some examples of duties that could be performed by non-certified personnel include the following:

- Collect weigh memos and record material receipts
- Monitor and record non-critical construction activities with regular reporting to the Project Manager or Assistant Project Manager
- Measure and record Contract Work to allow payment to the Contractor
- Work with a Certified Inspector to monitor specific aspects of a construction activity or process. For example: On an HMAC paving project, a non-certified individual could be assigned to monitor one or more of the following:
 - HMAC temperature
 - Surface Preparation
 - Tack Coat application
 - Rolling patterns
 - HMAC Contamination (i.e. diesel, debris)
 - Clumps or crusted mix in the mat or on grade ahead of paver

In this example, the Certified Inspector would be on-site performing other various Inspection duties and would be receiving regular project updates from the non-certified individual.

Certifications

Following is a summary of the required Inspector Certifications:

Certified Bridge Construction Inspector (CBCI): Bridge Inspection Training will inform the Inspector of the various types and methods of bridge construction and proper Inspection practice.

Certified Erosion Control Inspector (CECI): The purpose of this class is to inform Inspector's of NPDES permit requirements and Best Management Practices for Erosion and Sediment Control.

Certified Drilled Shaft Inspector (CDSI): The goal of this course is to provide Drilled Shaft Foundation Inspectors with the practical knowledge and Standard-of-the-Industry practices for the inspection of drilled shaft foundation construction.

Certified General Inspector (CGI): The General Inspector Training is intended to be a pre-requisite for the other specialty certifications. The training will focus on the General Provisions, Contract Administration, Roles and Responsibilities, etc.

Certified Hot Mixed Asphalt Concrete Inspector (HMAC): The purpose of the HMAC Inspector class is to provide each participant with information and tools to be an effective HMAC Inspector. Attention is focused on inspection of items that are critical to HMAC performance and how to fulfill the necessary contract documentation requirements.

Certified Hot Mixed Asphalt Concrete Inspector (HMAC): The purpose of the HMAC Inspector class is to provide each participant with information and tools to be an effective HMAC Inspector. Attention is focused on items that can be inspected that are critical to the performance of HMAC and necessary for fulfilling contract documentation requirements.

Certified Traffic Signal Inspector (CTSI) -- Traffic Signal Inspection training is designed to provide the training and resources necessary to properly inspect Traffic Signal and Electrical Installations on State Highways. The training focuses on Traffic Signals, but applies to all Electrical Installations.

Traffic Control Supervisor* -- Traffic Control Supervisor (TCS) training will provide the participant a working knowledge of the duties and responsibilities of a TCS. The training will also cover the duties and responsibilities of an Inspector regarding Work Zone Traffic Control.

**Traffic Control Supervisor training and certification is offered through the Evergreen Safety Council (www.esc.org). ODOT Personnel can request training through the Region Safety Manager. Non-ODOT Inspectors should register for training directly through the Evergreen Safety Council.*

Certification Process

Under the Inspection Certification Program, to become certified, Inspectors are required to demonstrate their understanding of the inspection process by passing an examination. Training is available, but not required for each of the Inspector Certifications. Experienced inspectors may choose to take the examination without attending training.¹ Course materials are available through the ODOT Construction Section to allow inspectors who intend to challenge the exam an opportunity for self study. If a participant fails the exam after attending training, one re-examination exam will be allowed. Failure on the re-examination will require the inspector to attend the training course again if certification is still desired.

Applicants attempting the challenge process are given one opportunity to successfully meet the certification requirements. Failure of any examination on the first attempt will require the individual to attend formal training which can be scheduled through ODOT's Inspection Certification Program website².

Inspector Certifications will be valid for a 3 to 5³ year period, after which the Inspector will need to complete a re-certification course and/or examination to extend their certification for an additional 3 to 5 years.

The Quality Assurance Unit will work with all of the training providers to ensure a consistent certification/recertification process that will properly measure an Inspector's skills and ability.

Training and Certification is strongly recommended at the earliest opportunity for New Inspectors and other non-certified individuals. Certification exams are readily available for non-certified individuals to challenge. Non-certified individuals who have demonstrated competence on the job are encouraged to challenge the applicable Certification Exam(s) and obtain proper certification.

Certification Examinations

To apply for the certification, the applicant will either register for one of the approved training classes, where the exam will be administered as part of the class, or submit an application to challenge the exam. The challenge applications will be submitted through

¹ *Traffic Control Supervisor certification is offered through the Evergreen Safety Council. There is not a challenge examination available for this certification.*

² <http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/Cert/InspCert.shtml>

³ *Certified Traffic Signal Inspector and Traffic Control Supervisor certifications are valid for 3 yrs from the date of issue. Our intent is for the remainder of the certifications to be valid for 5 yrs.*

the ODOT Construction Program Analyst. Challenge exams will be scheduled at a time that is convenient for ODOT and the applicant.

Exams are:

- a. Open Book
- b. Consists of multiple choice and true or false questions about inspection procedures and specifications.
- c. Written exam time lines vary depending on the needed certification. In general, 2 to 3 hours are given to complete the exam.
- d. The passing score is 80% for all certifications.

Documentation of Certification

Upon the successful completion of the examination(s), the participant's name, address, and/or company affiliation will be registered in the official registry of certified individuals for the appropriate certification. The official registry is maintained by the ODOT Construction Section and can be accessed on the internet at the following address: www.odot.state.or.us/techserv/operatns/techcert/techcertDynamic/Index1.cfm

It is anticipated that many technicians will hold multiple certifications. Each certified technician will be given a laminated wallet-size identification card, which indicates all areas of certification, and official letter(s) indicating certification(s) held.

