

**COURSE NUMBER**

FHWA-NHI-130110

COURSE TITLE**Tunnel Safety Inspection**

This 5-day, Instructor-led Training (ILT) is highly interactive and builds upon participants' prior knowledge of tunnel and/or bridge inspection. This course covers the entire breadth of knowledge necessary to manage or execute a successful tunnel inspection based on the National Tunnel Inspection Standards (NTIS), Tunnel Operations, Maintenance, Inspection and Evaluation (TOMIE) Manual and Specifications for the National Tunnel Inventory (SNTI). However, it does not replace the need for specialized experts to assist in inspections. There are nine instructional modules. Once participants display achievement of the learning outcomes of one module, the class will progress to the next module. During the course, the instructor will lead participants through a series of case studies giving them an opportunity to practice and apply their knowledge in real-life tunnel inspection situations. The capstone case study will be a virtual tunnel inspection that takes place in a computer-simulated, 3D environment. Using this tool, participants will be able to perform a tunnel inspection and demonstrate their achievement of all learning outcomes.

*Participant Prerequisite Requirement: ALL participants should successfully complete one of the following three prerequisite requirements:

- 130054 Engineering Concepts for Bridge Inspectors; or
- 130101 Introduction to Safety Inspection of In-Service Bridges; or
- 130101A Prerequisite Assessment for Safety Inspection of In-Service Bridges.

Prior to taking this course, it is strongly recommended that participants complete 130055 Safety Inspection of In-Service Bridges, or possess equivalent field experience.

It is not required, but strongly recommended that participants possess some design or safety inspection experience of in-service tunnels or bridges.

Host Requirements: Hosts must provide a training room large enough to accommodate at least 30 participants as well as the 15 NHI virtual tunnel laptops (provided by NHI Instructors) that will be used for the virtual tunnel exercises. Additionally, the host must ensure that ALL students have successfully met the prerequisite requirement* and have a valid course completion certificate for one of the three prerequisite options.

OUTCOMES

Upon completion of the course, participants will be able to:

- Articulate the importance and purpose of tunnel inspection
- Apply the fundamentals of tunnel inspection
- Demonstrate the inspection and evaluation of tunnel structural, civil, mechanical, electrical, signage and lighting, and fire/life safety/security elements
- Use tunnel inspection references

TARGET AUDIENCE

The target audience for the Tunnel Safety Inspection ILT course is primarily members of Federal, State, local (Authority or Commission) and Tribal highway agency employees, who are involved with tunnel design, inspection and maintenance, as well as consultants involved in inspecting tunnels or in tunnel inspection management and leadership positions.

TRAINING LEVEL: Basic

FEE: 2017: \$1450 Per Person; 2018: N/A

LENGTH: 5 DAYS (CEU: 3.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

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