

NASSCO's

***Inspector Training Certification Program (ITCP™)
For Cured-In-Place Pipe***

COURSE CONTENT



Introduction

Municipalities and engineers continue to ask for additional training, particularly applicable to pipeline renewal technologies. In response, NASSCO is proud to present this 2024 revision of the Inspector Training Certification Program (ITCP) for Cured-In-Place Pipe (CIPP) Installation.

This training is intended for consulting engineers who provide inspection services, municipal or industrial engineers who perform inspection on their projects, contractors wanting to learn more about the CIPP technology, inspectors who are onsite inspecting the project, and all who need a comprehensive understanding of the CIPP renewal technology. The ITCP-CIPP course covers specific areas of expertise that are needed to ensure that a trenchless project is built correctly and meets the requirements of the contract documents. The ITCP-CIPP has been structured to achieve this training.

The training course includes one and a half days of technology and specification theory. The course includes sample forms that can be used by the attendee as the basis for recording information on the project site. The forms have specific quality assurance/quality control requirements for each technology, the inspection procedures required and the information which needs to be documented for a complete inspection record.

Each attendee is required to pass an open book exam which demonstrates their basic knowledge of the CIPP technology, and upon completion of the training program, the attendee will receive a certificate that they have successfully completed ITCP for CIPP.

Course Outline

Day 1

Chapter 1 - Existing Pipe Defects and How They Affect CIPP Installations

In this chapter the instructor reviews the different levels of pipeline conditions that are commonly encountered in existing sewer systems. All defects shown have been coordinated with PACP, Version 8. Each pipeline condition level and how the condition will affect the installation of a CIPP is discussed. Understanding pipeline deterioration and condition allows the inspector to make informed recommendations for the installation of a CIPP based on real data, not speculative assumptions.

Chapter 2 - Overview of the CIPP Technology

The student learns about all aspects of the CIPP technology, which typically consists of a resin saturated fabric tube being installed into a deteriorated pipeline. After insertion, the liner is cured into a hard CIPP, typically without excavation. The technology can be applied to municipal sewers, laterals, water mains, drainage pipes, outfall pipes and force mains. Utility pipes, including gas mains and electrical conduits, all manners of industrial, highway and railroad culverts, and many other piping systems can also be renewed using the CIPP technology.

Chapter 3 - Field Installation of CIPP

In this chapter the instructor reviews the sequence of events that occur on a typical CIPP installation project, starting with the contractor's mobilization, project set-up, liner installation and curing, then ending with the final inspection. The inspector's responsibilities during this process are discussed. Typical installed product appearance and quality are illustrated as well as the type of defects that can occur with a CIPP during installation, including what remedies are recommended. Robotic service reconnections are reviewed, including levels of quality and what may or may not be acceptable.

Day 2

Chapter 4 - Writing and Understanding Performance Specifications

The student learns about some of the key aspects of performance specifications and what is important to ensure that the customer receives a quality product at the price paid. The technical specifications are one of the most important sections of the contract documents. They instruct the Contractor on how the project should be built, and what level of quality is to be achieved. A badly written or vague specification will discourage quality contractors and encourage extra change orders from the low bid contractor, which may result in a low quality installed product. A well written performance-based specification spells out the work required, defines the required quality controls, specifies the quality assurance during construction to be enforced, and spells out what testing will be required and enforced.

Chapter 5 - Pipeline Renewal Technologies and Their Applications

Since 1980 many new commercial pipeline renewal technologies and materials have been developed. Some are fully integrated systems including quality tested materials, specific installation equipment, and fully trained installers. Equipment only technologies have been developed; these are used to install a number of different commercially available pipe materials. In Chapter 5, the instructor will review many of these renewal technologies so the students will understand the different applications and uses.

Jeopardy and Sample Inspector Actions

Certification Examination

Course Fee

The cost for the two-day program and certification is \$1,375. NASSCO members may be eligible for member discounts. If you are not yet a member, join today at NASSCO.org.

The course includes the following:

- A technology-experienced instructor
- 1.5 days of intensive class instruction
- A comprehensive course reference manual
- 1.35 CEU credits upon request at enrollment
- Administration of a certification examination
- Issuance of Certificate of Completion if course requirements are met