

American Water Works Association

ANSI/AWWA C605-94

(First Edition)



AWWA STANDARD
FOR
**UNDERGROUND INSTALLATION
OF POLYVINYL CHLORIDE (PVC) PRESSURE
PIPE AND FITTINGS FOR WATER**



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AMERICAN WATER WORKS ASSOCIATION

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Foreword

This foreword is for information only and is not a part of AWWA C605.

I. Introduction.

I.A. *Background.* AWWA C605, Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water, is offered as a reference to be used when constructing new water distribution systems and water transmission pipelines or when making repairs or extensions to existing water distribution systems and water transmission pipelines. This standard provides information on pipe handling, trench excavation, pipe installation, appurtenance placement, and preparation of pipelines for use. It is not intended that this AWWA standard be used as a contract document; however, it may be used as a reference in contract documents. This standard represents the consensus of the standards committee on the recommended practice for the proper installation of polyvinyl chloride (PVC) pressure water pipe. The standard is not intended to preclude the manufacture, marketing, purchase, or use of any product, process, or procedure.

I.B. *History.* This is the first edition of AWWA C605. In 1978, the AWWA Standards Council authorized the AWWA Standards Committee on Thermoplastic Pressure Pipe to prepare a design and installation manual that would be followed by an installation standard for PVC pressure pipe. AWWA Manual M23, *PVC Pipe—Design and Installation*, was published in 1980. On completion of the manual, development of this standard began.

In 1988 the AWWA Standards Committee on Thermoplastic Pressure Pipe was dissolved to allow for the formation of the AWWA Standards Committee on Polyvinyl Chloride (PVC) Pressure Pipe and Fittings. A new subcommittee was convened to resume work on the installation standard in 1989.

I.C. *Acceptance.* Government legislative and regulatory bodies at national and state or provincial levels promulgate rules that may control the use of products described in AWWA C605. AWWA does not obtain or provide information about all of the actual or proposed regulations in the many involved jurisdictions. The user of this standard is cautioned to determine that the use of products and practices described in this standard conform to all applicable laws and regulations. Questions concerning laws and regulations should be referred to the appropriate regulatory agency.

Consensus standards have been developed for direct and indirect additives from products that come in contact with potable water. Manufactured products covered by AWWA C605 eventually may be required to be certified to meet those standards. Questions regarding additives should be referred to the appropriate state regulatory agency.

II. Special Issues. Currently, there are no special issues related to this standard.

III. Use of This Standard. It is the responsibility of the user of an AWWA standard to determine that the products described in that standard are suitable for use in the particular application being considered.

III.A. *Purchaser Options and Alternatives.* When installing PVC pressure pipe using this standard, the following items should be covered in the contract documents:

1. Special provisions for excavation and trenching requirements (Sec. 4.2).

2. Special provisions for conflicting utilities and responsibility for facilities and responsibility for the location, relocation, and repair of the conflicting facility or relocation of the pipeline if necessary (Sec. 3.1.3 and Sec. 3.2).

3. Site requirements, such as clearing and grubbing; demolition, removal, and replacement of roadways, pavements, and other improved surfaces and surface features; and erosion protection (Sec. 4.1, Sec. 4.2, and Sec. 5.8).

4. Materials to be furnished by the purchaser (Sec. 2.1).

5. Special trench foundations (Sec. 4.2.7).

6. Special embedment materials (Sec. 5.3).

7. Special provisions for testing, including the assignment of responsibility for furnishing and conveying water for flushing, testing, and disinfection, and provisions for disposal of disinfection water. Assignment of responsibility for furnishing equipment for testing. Required records and witnessing of testing (Sec. 7).

8. Design system working pressure and required test pressure (Sec. 7.3.3 and Sec. 7.3.4).

9. Reference to applicable plans, drawings, specifications, and other contract documents (all sections).

10. Special requirements for the method of disinfection, sampling, and analysis (Sec. 7). (See ANSI/AWWA C651, Standard for Disinfecting Water Mains.)

III.B. Modification of Standard. Any modification of the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

IV. Major Revisions. This is the first edition of this standard.

V. Comments. If you have any comments or questions about this standard, please call the AWWA Standards Department, (303) 794-7711 ext. 2201, FAX (303) 795-1440, or write to the department at 6666 W. Quincy Ave., Denver, CO 80235.

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AWWA STANDARD FOR UNDERGROUND INSTALLATION OF POLYVINYL CHLORIDE (PVC) PRESSURE PIPE AND FITTINGS FOR WATER

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard covers underground installation and hydrostatic testing procedures for polyvinyl chloride (PVC) pressure pipe and fittings that comply with either ANSI/AWWA C900, ANSI/AWWA C905, or ANSI/AWWA C907. It may be necessary to supplement this standard with provisions for special requirements not included herein. (See foreword, Sec. III.) Such special requirements should be incorporated into the purchaser's specifications.

Sec. 1.2 Definitions

Under this standard, the following definitions shall apply:

1.2.1 *Constructor*: The party that furnishes the work and materials for placement or installation.

1.2.2 *Manufacturer*: The party that manufactures, fabricates, or produces materials or products.

1.2.3 *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

1.2.4 *PVC pressure pipe*: Polyvinyl chloride (PVC) pressure pipe manufactured in accordance with ANSI/AWWA C900 or ANSI/AWWA C905.

1.2.5 *Supplier*: The party who supplies materials or services. A supplier may or may not be the manufacturer.