



American Water Works Association

ANSI/AWWA D105-80
(First Edition)

AWWA STANDARD
for
DISINFECTION OF WATER STORAGE FACILITIES



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*Alternate

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Foreword

This foreword is for information only and is not a part of AWWA D105.

I History of Standard

This first edition of AWWA Standard D105 is based on information originally contained in AWWA D102-64, "Painting and Repainting Steel Tanks, Standpipes, Reservoirs, and Elevated Tanks for Water Storage." The procedures for disinfection of storage facilities have been revised and expanded to include storage facilities of design and materials of construction other than steel.

This standard describes methods of disinfecting water storage facilities which are newly constructed, have been entered for construction or inspection purposes, or which in their normal operation are continuing to show the presence of coliform bacteria. Storage facility is defined to be a reservoir from which water, without further treatment, is supplied directly to the distribution piping system for domestic use. From a practical standpoint, this standard applies to the disinfection of covered storage facilities constructed of steel or reinforced concrete or materials which would provide a similar structure from a water quality standpoint. Since wood may support growth of coliform bacteria, it is recommended that any submerged wood surface (column, baffles, etc.) be coated with epoxy or other durable and effectively impermeable paint or coating approved for domestic water use.

Parts of this standard may be applicable to the disinfection of large finished-water open storage reservoirs, such as are formed by concrete or earth dams, but such applications are incidental and this standard is not intended to cover such storage facilities.

Three methods of chlorinating storage facilities are described in this standard.

The utility should decide which of these methods is most suitable for a given situation. Choice of the method used should include consideration of the availability of materials and equipment for the disinfection, the training of the personnel who will be performing the disinfection, and safety considerations. For example, the application of gas chlorination should be used only where properly designed and constructed equipment is available; make-shift equipment is not acceptable where liquid chlorine cylinders are used. The use of spray equipment inside the storage facility should be used only when thorough ventilation is assured or when appropriate protection is provided by the use of canister type gas masks or self-contained breathing units. If a method is selected which requires the draining of a storage facility in order to dispose of highly chlorinated water, then thorough consideration should be given to the impact on the receiving environment. If there is any question that damage may be caused by a chlorinated waste discharge (to fish life, plant life, physical installations or other downstream water uses of any type) then an adequate amount of a reducing agent should be applied to water being disposed of in order to neutralize thoroughly the chlorine residual remaining in the water.

II Information Regarding Use of This Standard

This standard is written as though the work will be done by the owner's personnel. Where the owner is contracting for such work to be done, appropriate provisions should be included in the contract



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