

NSF/ANSI 25 – 2002

# Vending machines for food and beverages

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**NSF International Standard/  
American National Standard**

NSF/ANSI 25 – 2002



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American National Standard  
for Food Equipment —

## **Vending machines for food and beverages**

Standard Developer

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## Foreword<sup>2</sup>

The purpose of this Standard is to establish minimum food protection and sanitation requirements for the materials, design, construction, and performance of dispensing freezers and related components.

A significant technical revision has been made to the Standard. In the previous edition of NSF/ANSI 25, the in-place cleaning (IPC) performance evaluation method prescribed two distinct methodologies and acceptance criteria to evaluate a manufacturer's IPC procedures, both of which had to be met for a unit to be deemed acceptable. These were 1) a pour plating technique using Violet Red Bile agar (VRB), which was used primarily for confirmation that the organisms recovered were, in fact, the challenge organisms, and 2) the Most Probable Number (MPN) method using Brilliant Green Bile media, which was used for enumeration of the organisms.

In this edition of NSF/ANSI 25, the MPN evaluation method used for the IPC evaluation has been replaced with the Membrane Filtration (MF) technique. The MF method also serves as an alternative to both the MPN and the pour plate methodologies. The MPN method has been deemed outdated for this application.

MF is a more sensitive method of determination. The volume of sample analyzed post-IPC is equal to the volume collected (500 mL). Per this method, the entire slug of effluent collected is analyzed (as opposed to the MPN method which employs statistical interpolation to determine the amount of organisms *most probably* present in the entire slug from aliquots thereof). Also, the use of MF makes pour plating with VRB agar procedurally obsolete as the MF technique utilizes a media selective only for the enumeration of the challenge organism.

MF provides a more accurate assessment of the efficacy of the IPC procedure. As such, the NSF Joint Committee on Food Equipment and the NSF Council of Public Health Consultants recommends that NSF/ANSI 25 incorporate the most suitable methodologies and up-to-date techniques commonly available to microbiologists for these evaluations and that this methodology be utilized for the IPC performance evaluations.

This Standard was developed by the NSF Joint Committee on Food Equipment using the consensus process described by the American National Standards Institute.

Suggestions for improvement of this standard are welcome. Comments should be sent to Chair, Joint Committee on Food Equipment, c/o NSF International, Standards Department, 789 N. Dixboro Road, Ann Arbor, Michigan 48105, USA.

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<sup>2</sup> The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, this Foreword may contain material that has not been subjected to public review of a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

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NSF/ANSI Standard  
for Food Equipment —

# Vending machines for food and beverages

## 1 General

### 1.1 Purpose

This Standard establishes minimum food protection and sanitation requirements for the materials, design, construction, and performance of vending machines for food and beverages and their related components.

### 1.2 Scope

This Standard contains requirements for food and beverage vending machines, including those that vend packaged food and beverages and those that vend food and beverages in bulk.

Vending machine materials and components covered under other NSF or NSF/ANSI Standards or Criteria shall also conform to the requirements therein. This Standard is not intended to restrict new design, provided such design meets the minimum specifications described herein.

### 1.3 Alternate materials, design, and construction

While specific materials, design, and construction may be stipulated in this Standard, vending machines that incorporate alternate materials, design, and construction may be acceptable when such equipment meets the applicable requirements contained in this Standard.

## 2 Normative references

The following documents contain provisions that, through reference, constitute provisions of this NSF/ANSI Standard. At the time this Standard was balloted, the editions listed below were valid. All documents are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below.

ANSI/ASSE 1001–2002, *Pipe Applied Atmospheric Type Vacuum Breakers*<sup>3</sup>

ANSI/ASSE #1022–1998, *Backflow Preventer for Carbonated Beverage Machines*<sup>3</sup>

ANSI/ASSE #1024–1998, *Dual Check Valve Type Backflow Preventers*<sup>3</sup>

APHA *Standard Methods for the Examination of Water and Wastewater*, 20<sup>th</sup> Ed.<sup>4</sup>

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<sup>3</sup> American Society of Sanitary Engineering (ASSE), International Office, 901 Canterbury, Suite A, Westlake, OH 44145

<sup>4</sup> American Public Health Association, 800 I St. NW, Washington, DC 20001