# DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT FEDERAL HOUSING ADMINISTRATION

To: REGIONAL ADMINISTRATORS, DIRECTORS, OFFICES OF REGIONAL HOUSING, FIELD OFFICE MANAGERS AND SUPERVISORS

Use of Materials Bulletin No. 77a

Date

March 28, 1980

SUBJECT: CAST IRON SANITARY DRAINAGE SYSTEM WITH HUBLESS PIPE AND FITTINGS

Members of the HUD Staff processing cases and inspecting construction shall use this information in determining acceptability of the subject material for the uses indicated.

This bulletin should be filed with Bulletins on Special Methods of Construction and Materials as required by prescribed procedures. Additional copies may be requisitioned by the field offices.

The technical description, requirements and limitations expressed herein do not constitute an endorsement, approval or acceptance by the Department of Housing and Urban Development (HUD/FHA) of the subject matter, and any statement or representation, however made, indicating approval or endorsement by the Department of Housing and Urban Development is unauthorized and false, and will be considered a violation of the United States Criminal Code 18, U. S. C. 709.

Any reproduction of this Bulletin must be in its entirety and any use in sales promotion or advertising is not authorized.

Subject to good workmanship, compliance with applicable codes, and the methods of application listed herein, the materials described in this bulletin may be considered suitable for HUD Housing Programs, including Housing for the Elderly and Care-Type Housing.

The eligibility of a property under these Programs is determined on the property as an entity and involves the consideration of underwriting and other factors not indicated herein. Thus, compliance with this bulletin should not be construed as qualifying the property as a whole, or any part thereof, as to its eligibility.

The methods of application for the materials listed herein are to be considered as part of the HUD Minimum Property Standards and shall remain effective until this bulletin is cancelled or superseded.

## SECTION I - GENERAL STATEMENT

This Bulletin sets forth the requirements and conditions for the acceptance of hubless cast iron soil pipe and fittings. The information contained herein is available for use as a guide by manufacturers, architects, engineers and builders seeking appropriate HUD acceptance. These materials are acceptable for use in the applications detailed in Section II. Terminology used is consistent with that of the nationally recognized model plumbing codes.

This Bulletin supersedes the following Use of Materials Bulletins:

Number	Subject	Date	
'UM-36e	No-Hub Pipe and Fittings	February 4, 1974	<del>-</del>
*UM-77	Hubless Pipe and Fittings	April 25, 1978	9

#### SECTION II - ALLOWABLE USES

The hubless cast iron sanitary system conforming to the standards and other publications referenced in Section III may be used in the construction of sanitary drainage, waste and vent piping, building sewers, storm drainage piping, and condensate drainage piping above and below grade for single and multifamily structures, including Housing for the Elderly and Care-Type Housing.

# SECTION III - REFERENCE STANDARDS

The latest editions of the following publications, dated prior to the issue date of this Bulletin, form a part of this Bulletin:

# CISPI Publications

- \*CISPI 1/ Standard No. 301 Standard Specification for Cast Iron Soil Pipe and Fittings for Hubless Cast Iron Sanitary System
- \*CISPI 2/ Standard No. 310 Specification for Cast Iron Soil Pipe Institute's Patented Joint for Use in Connection With Hubless Cast Iron Sanitary System

CISPI Cast Iron Soil Pipe and Fittings Engineering Manual

CISPI Cast Iron Soil Pipe and Fittings Handbook

 $<sup>\</sup>frac{1}{2}$ / See footnote, bottom of next page.

 $<sup>\</sup>frac{2}{2}$ / Includes installation details.

<sup>\*</sup>Revised

Copies of the above references may be obtained from CISPI 1/, and are available for review at HUD Headquarters in the Office of Architecture and Engineering Standards, 451 7th Street, S. W., Room 6178, Washington, D.C. 20410.

## SECTION IV - MATERIALS

# A. Composition and Properties

Pipe, fittings and joining materials shall be manufactured from materials as defined in the following specifications:

1	PIPE AND FITTINGS		JOINING MATERIALS	
*	Gray Cast Iron	CISPI 301	   Rubber	CISPI 310
; *  			Shield and Clamp Assy.	CISPI 310

#### B. Dimensional Details and Test Requirements

Dimensions, tolerances, shapes and applicable test requirements for pipe, fittings and joining materials shall conform with the following specifications:

	PIPE AND FITTINGS		   JOINING MATERIALS	
    *  	Dimensions, Shapes and Tolerances	CISPI 301	Dimensions, Shapes and Tolerances	CISPI 310
*	Physical and Chemical Requirements	CISPI 301	Physical and Chemical Requirements:	
			(Rubber)   (Stainless Steel)	CISPI 310 CISPI 310

<sup>\*1/</sup> Cast Iron Soil Pipe Institute, 1499 Chain Bridge Road, Suite 203, McLean, Virginia 22101

<sup>\*</sup>Revised

#### SECTION V - SYSTEM DESIGN AND INSTALLATION REQUIREMENTS

# A. General Requirements

The selection, design, installation and leak testing of piping systems shall conform with all applicable requirements of the HUD Minimum Property Standards, the applicable nationally recognized model codes and industry standards of good practice.

 $\Sigma II^{\prime\prime}$ 

#### B. Requirements for Making Joints and Connections

-

The materials and installation techniques used for joining pipes and fittings shall assure adequate resistance of the completed system to leaking, and shall assure adequate resistance to joint failure from long-term exposure to the service environment. The recommendations of the manufacturer and applicable industry standards shall be followed in making joints and connections. Standards and other publications defining generally accepted practice include the following:

\*CISPI Standard No. 310, Page 9

CISPI Pipe and Fittings Handbook, Vol. I, Chapter IV

## C. Requirements for Hangers and Supports

Hangers or supports shall be provided for horizontal piping at intervals sufficient to prevent deflections likely to interfere with drainage or leak resistance. Vertical stacks shall be anchored at appropriate intervals.

Selection and installation of hangers and supports shall be in accordance with the manufacturer's recommendations and applicable industry standards. Publications defining generally accepted practice include the following:

\*CISPI Standard No. 310, Pages 10-20

CISPI Pipe and Fittings Handbook, Vol. I, Chapter IV

### D. Requirements for Underground Installation

Corrosion resistant bands and clamps adequate for site soil conditions shall be used.

<sup>\*</sup>Revised

Techniques used for trenching, alignment and back-filling shall not produce stresses and strains likely to interfere with drainage or leak resistance or to result in structural collapse of pipe or fittings. Methods used shall be in accordance with the manufacturer's recommendations and applicable industry standards publications defining generally accepted practice include the following:

\*CISPI Standard No. 310, Page 17

CISPI Pipe and Fittings Handbook, Vol. I, Chapter IV

SECTION VI - DETERMINATION OF COMPLIANCE

Marking - Pipe, fittings and joining materials shall be marked or labeled in accordance with applicable, generally recognized standards 2/. On request, the manufacturer shall certify compliance with the requirements of CISPI Standards No. 301 and 310.

 $<sup>\</sup>frac{1}{2}$  See footnote at bottom of Page 3

<sup>\*2/</sup> Presently, such standards are CISPI Standards No. 301 and 310, which give marking details and provide for the optional use of the collective mark No-Hub ® indicating the manufacturer's certification of compliance with the requirements of the standards of the Cast Iron Soil Pipe Institute. This program is administered under the procedures of the Cast Iron Soil Pipe Institute 1/. The collective mark is available only to licensed members of the Cast Iron Soil Pipe Institute.

<sup>\*</sup>Revised