

February 18, 1987, following the 10:00 a.m. open meeting.

The Commissioners, Counsel to the Commissioners, the Secretary of the Commission, and recording secretaries will attend the closed meeting. Certain staff members who are responsible for the calendared matters may also be present.

The General Counsel of the Commission, or his designee, has certified that, in his opinion, one or more of the exemptions set forth in 5 U.S.C. 552b(c) (4), (8), (9)(A) and (10) and 17 CFR 200.402(a) (4), (8), (9)(i) and (10), permit consideration of the scheduled matters at a closed meeting.

Commissioner Peters, as duty officer, voted to consider the items listed for the closed meeting in closed session.

The subject matter of the open meeting scheduled for Tuesday, February 17, 1987, at 9:30 a.m., will be:

The Commission is hosting a roundtable concerning the growing internationalization of the securities markets. Due to the increasing movement towards global trading markets for certain securities and the significant flow of investments across national borders, the Commission believes that it is appropriate to review these developments in the roundtable discussions. In the morning session, scheduled for 9:30 a.m. to 12:00 noon EST, the participants will include representatives from the securities industry and various securities markets, including the American, Amsterdam, London, New York, and Toronto Stock Exchange, the National Association of Securities Dealers, Inc., and the International Securities Clearance Corporation. The topics will include international secondary market trading mechanisms, the availability of market information, transnational surveillance sharing, international clearance and settlement systems, possible regulatory adaptations, and barriers to the entry of foreign markets.

In the afternoon session, scheduled for 2:00 p.m. to 4:30 p.m., the participants will be representatives of the securities bar, investment firms, and a money management firm. Topics will relate to primary offering of U.S. securities abroad, the nature of global investments from the perspective of an equity

fund manager, foreign broker-dealer activity in the U.S., and adaptations of or effects of Rules 10b-6 and 10b-7 under the Securities Exchange Act of 1934. For further information, please contact William M. Harter, Jr. at (202) 272-2414 or Christine A. Sakach at (202) 272-2418.

The subject matter of the open meeting scheduled for Wednesday, February 18, 1987, at 10:00 a.m., will be:

1. Consideration of whether to issue an order with regard to System Energy Resources, Inc. ("SERI") a public utility subsidiary of Middle South Utilities, Inc. a registered holding company under the Public Utility Holding Company Act of 1935: (1) Authorizing amendments proposed by SERI to its Articles of Incorporation to create a new class of preferred stock, to split its common stock, and to provide for a deviation from the Commission's earnings coverage standard; (2) authorizing SERI's proposed issuance and sale of up to \$200 million of preferred stock by negotiated public offerings or private placements; (3) denying the Arkansas Public Service Commission's request for a hearing; (4) reserving jurisdiction over the fees and expenses and the terms and conditions associated with the issuance and sale of preferred stock and the basis for the common stock split; and (5) authorizing the Division of Investment Management to release jurisdiction over such fees, expenses, terms and conditions, and the basis for the common stock split under delegated authority. For further information, please contact John Brandenburg at (202) 272-7341.

2. Consideration of whether to issue a release proposing for comment Securities Exchange Act Rules 15Ca1-1 through 15Cc1-1 and revisions to Rules 15b2-2 and Form BD in order to implement the registration and notice requirements of the Securities Exchange Act of 1934 ("Act") as amended by the Government Securities Act of 1986. The Act requires government securities broker-dealers to register or file notice with the Commission of their government securities activities. The proposed rules prescribe the form and information government securities broker-dealers must file with the Commission in order to register or file notice. For further information, please contact Lynne G. Masters at (202) 272-2848.

The subject matter of the closed meeting scheduled for Wednesday,

February 18, 1987, following the 10:00 a.m. open meeting, will be:

Settlement of administrative proceedings of an enforcement nature.
Institution of administrative proceedings of an enforcement nature.
Institution of injunctive action.
Opinion.

At times changes in Commission priorities require alterations in the scheduling of meeting items. For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact: David Potel at (202) 272-2014.

Jonathan G. Katz,
Secretary.

February 9, 1987.

[FR Doc. 87-3103 Filed 2-10-87; 12:44 pm]

BILLING CODE 8010-01-M

STATE JUSTICE INSTITUTE

TIME AND DATE: 9:00-4:00 p.m., February 21, 1987.

PLACE: State Justice Institute, 120 South Fairfax Street, Alexandria, VA 22314.

STATUS: The meeting will be closed from 9:00 a.m. until 2:00 p.m. to discuss matters exempted from public disclosure pursuant to 5 U.S.C. 552b(c).

MATTERS TO BE CONSIDERED:

Portions Open to the Public:

Discussion of program priorities, conditions and limitations on awards and applications and review procedures.

Portions Closed to the Public:

Discussion of personnel policies and practices of the agency.

CONTACT PERSON FOR MORE

INFORMATION: David I. Tevelin, telephone 703-628-6100, Executive Director, State Justice Institute, 120 South Fairfax Street, Old Town Alexandria, Virginia 22314.

David I. Tevelin,
Executive Director.

[FR Doc. 87-3141 Filed 2-10-87; 3:59 pm]

BILLING CODE 8020-SC-M

Corrections

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

NUCLEAR REGULATORY COMMISSION

State of Illinois; Staff Assessment of Proposed Agreement Between the NRC and the State of Illinois

Correction

In FR Doc. 86-29382 beginning on page 3503 in the issue of Wednesday, February 4, 1987, make the following correction:

On page 3514, the last four pages of the document were inadvertently omitted, beginning in the description of the qualifications of Tim Runyon. The omitted material, including the complete description of Mr. Runyon's qualifications, reads as follows:

Tim Runyon: Nuclear Safety Inspector. Assists the Chief, Waste & Transportation Management.

Training:

A.S.—Illinois Central College—Radiologic Technology

"Hazardous Materials Transportation Course," ISP, Illinois State Policy Academy, Springfield, Illinois (1985)

"Review of USDOT Regulations," US NRC, Hanford, Washington (1985)

"Evaluation and Control of Ionizing Radiation," OSHA, Argonne National Laboratory (1981)

"Emergency Response for Radiological Accidents," REECO, Las Vegas, Nevada (1981)

Experience:

1985–Present: Illinois Department of Nuclear Safety, Office of Environmental Safety

1979–1985: Illinois Department of Nuclear Safety, Office of Radiation Safety

Stephen B. Shafer: Nuclear Safety Inspector II. Performs inspections and health physics Surveys.

Training:

Graduate Classes (non-degree)
University of Illinois (1984)

B.S.—Western Illinois University (1983)—
Geophysics

Hazardous Materials Transportation Enforcement Course, Illinois State Police, Springfield, Illinois (1986)

Radiological Emergency Response Operations Course, FEMA, Nevada (1986)

Short Course: Uranium and Thorium: A Perspective on the Hazard (1986)

Experience:

1986–Present: Illinois Department of Nuclear Safety

1984–1984: Illinois Department of Nuclear Safety, Summer Intern
Eric Schwing: Attorney. Provides legal counsel to the Director and technical staff in low-level radioactive waste management.

Training:

Ph.D. Candidate (presently enrolled), Michigan State University, Resource Development/Environmental Toxicology

Doctor of Laws (1982), Thomas M. Cooley Law School

B.A.—Michigan State University (1976)
—Chemistry

Experience:

1986–Present: Illinois Department of Nuclear Safety

1978–1986: Michigan Department of Public Health

1973–1978: Michigan State University
1971–1972: William Beaumont General Hospital (U.S. Army)

Gregory P. Crouch: Chief, Division of Radioecology. Directs the Office's environmental surveillance program.

Training:

M.P.H.—University of Minnesota (1986)
—Environmental Health

M.S.—Purdue University (1977)
—Bionucleonics/Health Physics

B.S.—Purdue University (1975)
—Biology

"Seminar on the Transportation of Nuclear Materials," US NRC, Springfield, Illinois (1983)

"Radiological Emergency Response Course," US DOE/FEMA, Nevada Test Site (1983)

"Inspection Procedures Course," US NRC, Atlanta, Georgia (1982)

Experience:

1986–Present: Illinois Department of Nuclear Safety

1981–1984: Illinois Department of Nuclear Safety

1977–1978: Indiana University Medical Center, Assistant Radiation Safety Officer

Federal Register

Vol. 52, No. 29

Thursday, February 12, 1987

1976–1977: Purdue University, Radiological Services, Graduate Assistant

Gregory J. Shott: Nuclear Safety Supervisor. Supervises the Department's—Mobile Radiochemistry Laboratory.

Training:

M.S.—University of Michigan (1985), Fisheries

B.S.—University of New Hampshire (1981), Biology

Experience:

1986–Present: Illinois Department of Nuclear Safety

1985–1986: Environmental & Chemical Sciences, Inc.; Environmental Scientist

1984: Lawrence Livermore National Laboratory; Research Associate, Environmental Intern Program

1981–1984: University of Washington, Laboratory of Radiation Ecology, Research Assistant

David D. Ed: Assistant Manager, Office of Environmental Safety.

Training:

B.S.—University of Illinois, Urbana (1971)

—Chemistry

"Radon Training for State Personnel," US EPA (1986)

"Comprehensive Health Physics," Rockwell International (1985)

"Biological Effects of Ionizing Radiation," Harvard University, School of Public Health (1982)

"Dose Projection, Accident Assessment and Protective Action Decision Making for Radiological Emergency Response," US NRC, FEMA (1980)

"Environmental Radiation Surveillance," Georgia Institute of Technology (1977)

"Radiological Emergency Response Operations Training," US NRC, ERDA (1977)

"Environmental Source Term Modeling," University of Chicago, Argonne National Laboratory (1971)

Experience:

1980–Present: Illinois Department of Nuclear Safety

1973–1980: Illinois Department of Public Health

1972–1973: Illinois Environmental Protection Agency

Abdul Khalique: Nuclear Safety Scientist I. Plans, implements and participates in radioanalytical programs.

Training:
 Ph.D.—University of Birmingham, England (1976), Analytical Chemistry
 M.S.—University of Karachi, Pakistan (1967), Chemistry
 B.S.—University of Karachi, Pakistan (1964)
 Quality Control Course, University of Business Administration, University of Karachi, Pakistan (1964)
 Experience:
 1986–Present: Illinois Department of Nuclear Safety
 1981–1986: Department of Pharmacology, Southern Illinois University School of Medicine
 1975–1980: Glaxo Laboratories (Pakistan), Ltd.
 1968–1970: Opal Laboratories, Ltd. (Pakistan)
Melanie A. Hamel: Health Physicist. Functions as a health physics specialist in the environmental monitoring division.
 Training:
 B.S.—University of Lowell, MA (1977), Health Physics
 University of Lowell, MA (1977), Environmental Monitoring and Surveillance, Health Physics
 Certification Review, Medical Health Physics
 "Environmental Law and the Citizen," Sangamon State University, Springfield, Illinois
 "Post-Accident Radiation Assessment," Northwestern University, Illinois
 "Radiation Protection Instrumentation," Harvard University, Boston, MA
 "Radon Training Session for State Personnel," US EPA
 Experience:
 1982–Present: Illinois Department of Nuclear Safety
 1977–1981: Yankee Atomic Electric Company
 1975: University of Lowell, Research Reactor Facility, Health Physics Technician
Michael V. Madonia: Nuclear Safety Associate. Performs technical duties concerning nuclear facility monitoring and environmental radiation control.
 Training:
 B.S.—University of Illinois
 —Nuclear Engineering, Radiation Protection and Shielding
 "Air Sampling for Radioactive Materials," Oak Ridge Associated Universities; Oak Ridge, Tennessee (1986)
 "Personal Computer Applications in Health Physics," TMS, Inc.; Boston, MA (1986)
 Nuclear-General Employee Training (NGET), Commonwealth Edison, Chicago, Illinois (1985)

"Radiation Detection and Measurement—Advanced Course," Eberline Analytical, Albuquerque, New Mexico (1985)
 "Fundamentals of Ground Water Contamination," Geraghty & Miller, Chicago, Illinois (1985)
 Experience:
 1985–Present: Illinois Department of Nuclear Safety
 1983–1984 (Summers): Illinois Department of Nuclear Safety
Richard Walker: Nuclear Policy Analyst. Performs review and analysis of Federal and State regulations.
 Training:
 Ph.D.—Purdue University (1976)
 —Sociology (Research Methods and Statistics)
 M.S.—Purdue University (1974)
 —Sociology
 B.S.—Marietta College (1972)
 —Sociology
 Environmental Radiation Surveillance, Harvard University, Massachusetts (1985)
 "Fundamentals of Radiation Safety," Radiation Safety Associates (1985)
 Experience:
 1985–Present: Illinois Department of Nuclear Safety
 1978–1984: Chairman, Department of Sociology, Blackburn College, Carlinville, Illinois
 1976–1978: Department of Sociology, Muhlenberg College, Allentown, Pennsylvania
Teresa A. Adams: Nuclear Policy Analyst. Performs staff functions coordinating and assisting with the direction of office programs.
 Training:
 B.A.—Wellesley College (1981)
 —German
 Massachusetts Institute of Technology, Department of Urban Studies and Planning (1982–1984)
 University of Hanover, West Germany; Department of Planning and Architecture (1981–1982)
 Additional coursework in decision analysis, fundamentals of radiation protection, hazardous waste minimization
 Experience:
 1985–Present: Illinois Department of Nuclear Safety
 1984: Parliamentary Research Service; Bonn, West Germany
 1982–1984: Worked on a variety of projects dealing with policy development and dispute resolution in environmental issues
Paul E. Seidler: Nuclear Policy Analyst. Responsible for implementing the Illinois public participation plan,

also performs as liaison with local government groups.

Experience:
 M.A.—University of Chicago (1986)
 —Public Policy
 B.A.—University of Illinois (1983)
 —Political Science, Communications Studies
 Urban & Regional Information Systems Association, 1986 Annual Conference (1986)
 Experience:
 1986–Present: Illinois Department of Nuclear Safety
 1985–1986: University of Chicago, Office of the Comptroller
 1985–1985: Illinois Bureau of the Budget
 1984–1985: Compass Health Plans
 1984–1984: U.S. Senator Paul Simon
 1982–1982: Creative Research Associates

Reference: Illinois Program Statement, (Section II.C.1.a), "Low-Level Waste Management," (Section II.C.1.b) "Sheffield Low-Level Waste Disposal Facility," Section IV.B, "Low-Level Radioactive Waste Management Program," and Appendices 5 and 9.

21. *Conditions Applicable to Special Nuclear Material, Source Material, and Tritium.* Nothing in the State's regulatory program shall interfere with the duties imposed on the holder of the materials by the NRC, for example, the duty to report to the NRC, on NRC prescribed forms (1) transfers of special nuclear material, source material, and tritium; and (2) periodic inventory data.

The State's regulations do not prohibit or interfere with the duties imposed by the NRC on holders of special nuclear material owned by the U.S. Department of Energy or licensed by NRC, such as the responsibility of licensees to supply to the NRC reports of transfer and inventory.

Reference: 32 ILL. Adm. Code 310.10.
 22. *Special Nuclear Material Defined.* The definition of special nuclear material in quantities not sufficient to form a critical mass, as contained in the Illinois regulations, is uniform with the definition in 10 CFR Part 150.

Reference: 32 ILL. Adm. Code 310.20, Definition of Special Nuclear Material in Quantities Not Sufficient to Form a Critical Mass.

Administration

23. *Fair and Impartial Administration.* The Illinois statute and regulations provide for administrative and judicial review of actions taken by the Department of Nuclear Safety.

Reference: 32 Ill. Adm. Code Parts 200, 310.90, 310.110, 330.500, Part 400.

24. *State Agency Designation.* The Illinois Department of Nuclear Safety has been designated as the State's radiation control agency.

References: Enabling statute for Illinois Department of Nuclear Safety, Ill. Rev. Stat. 1985, ch. 127, par. 63b17.

25. *Existing NRC Licenses and Pending Applications.*

The Department has made provision to continue NRC licenses in effect temporarily after the transfer of jurisdiction. Such licenses will expire on the date of expiration specified in the NRC license.

With respect to the radioactive materials covered by the NRC license issued to Kerr-McGee Chemical Corporation for the West Chicago Rare Earth's Facility (Docket No. 40-2061-SC) the NRC staff has determined that the radioactive materials at the facility are most appropriately treated as thorium mill tailings, i.e., byproduct materials as defined in Section 11e(2) of the Atomic Energy Act of 1954, as amended, whereas the thorium-bearing materials recovered from off-site residential properties and sewer treatment plant in West Chicago and stored at the Kerr-McGee facility are source material. The former material [11e(2) by product material] will not be subject to the Agreement and NRC will retain regulatory jurisdiction. The latter material will be regulated by IDNS when the Agreement becomes effective.

Radiologically contaminated materials in Kress Creek and in Reed-Keppler Park, West Chicago have also been determined by NRC staff to be source material. The former is the subject of an Atomic Safety and Licensing Board (ASLB) Proceeding [Docket 40-2061-SC (ASLB No. 84-502-01-SC)]. In the Kress Creek proceeding, in which Kerr-McGee and the People of the State of Illinois are parties, the ASLB found that the presence of this material in Kress Creek and the West Branch of the DuPage River probably resulted from the conduct of an NRC (and AEC) licensed activity at the West Chicago Rare Earths Facility. The ASLB, however, declined to require clean-up of the Creek and River based upon its analysis of the hazard posed by the radiologically contaminated material. The NRC staff has appealed that decision to the Atomic Safety and Licensing Appeal Board, but a decision on appeal has not yet been issued. Jurisdiction over source material in Kress Creek and the West Branch of the DuPage River will be relinquished to Illinois when the Agreement becomes effective. At that time, the NRC staff will request termination of the ASLB proceeding. Jurisdiction over the source material in Reed-Keppler Park will also be relinquished to Illinois when the

Agreement becomes effective.

With respect to the Sheffield low-level radioactive waste disposal site, jurisdiction will be relinquished by the NRC to Illinois when the Agreement becomes effective. At that time, NRC staff will request termination of the ASLB proceeding [Docket 27-39-SC (ASLB No. 78-374-01-OT)].

Reference: 32 ILL. ADM. CODE 330.360.

26. *Relations With Federal Government and Other States.* There should be an interchange of Federal and State information and assistance in connection with the issuance of regulations and licenses or authorizations, inspection of licensees, reporting of incidents and violations, and training and education problems.

The proposed agreement declares that the State will use its best efforts to cooperate with the NRC and the other Agreement States in the formulation of standards and regulatory programs for the protection against hazards of radiation and to assure that the State's program will continue to be compatible with the Commission's program for the regulation of like materials.

Reference: Proposed Agreement between the State of Illinois and the Nuclear Regulatory Commission, Article VI.

27. *Coverage, Amendments, Reciprocity.*

The proposed Illinois agreement provides for the assumption of regulatory authority over the following categories of materials within the State:

(a) Byproduct material, as defined by Section 11e(1) of the Atomic Energy Act, as amended.

(b) Source materials.

(c) Special nuclear materials in quantities not sufficient to form a critical mass.

(d) The land disposal of source, byproduct and special nuclear material received from other persons.

Reference: Proposed Agreement, Article I.

Provision has been made by Illinois for the reciprocal recognition of licenses to permit activities within Illinois of persons licensed by other jurisdictions. This reciprocity is like that granted under 10 CFR Part 150.

Reference: 32 ILL. ADM. CODE 330.900.

28. *NRC and Department of Energy Contractors.*

The State's regulations provide that certain NRC and DOE contractors or subcontractors are exempt from the State's requirements for licensing and registration of sources of radiation which such persons receive, possess, use, transfer, or acquire.

Reference: 32 ILL. ADM. CODE 310.30.

III. Staff conclusion

Section 274d of the Atomic Energy Act of 1954, as amended, states:

The Commission shall enter into an agreement under subsection b of this section with any State if:

(1) The Governor of that State certifies that the State has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement, and that the State desires to assume regulatory responsibility for such materials; and

(2) The Commission finds that the State program is in accordance with the requirements of subsection o, and in all other respects compatible with the Commission's program for the regulation of such materials, and that the State program is adequate to protect the public health and safety with respect to the materials covered by the proposed amendment.

The staff has concluded that the State of Illinois meets the requirements of Section 274 of the Act. The State's statutes, regulations, personnel, licensing, inspection and administrative procedures are compatible with those of the Commission and adequate to protect the public health and safety with respect to the materials covered by the proposed agreement. Since the State is not seeking authority over uranium milling activities, subsection o, is not applicable to the proposed Illinois agreement.

Dated at Bethesda, Maryland, this 24th day of December 1986.

For the U.S. Nuclear Regulatory Commission.

G. Wayne Kerr,

Director, Office of State Programs.

Appendix A—Proposed Agreement Between the United States Nuclear Regulatory Commission and the State of Illinois for Discontinuance of Certain Commission Regulatory Authority and Responsibility Within the State Pursuant To Section 274 of the Atomic Energy Act of 1954, as Amended

WHEREAS, the United States Nuclear Regulatory Commission (hereinafter referred to as the Commission) is authorized under Section 274 of the Atomic Energy Act of 1954, as amended (hereinafter referred to as the Act), to enter into agreements with the Governor of any State providing for discontinuance of the regulatory authority of the Commission within the State under Chapters 6, 7 and 8, and Section 161 of the Act with respect to byproduct materials as defined in Sections 11e(1) and (2) of the Act, source materials and special nuclear materials in quantities not sufficient to form a critical mass; and,

WHEREAS, the Governor of the State

of Illinois is authorized under Illinois Revised Statutes, 1985, ch. 111 ½, par. 216b and ch. 111 ½, par. 241-19 to enter into this Agreement with the Commission; and,

WHEREAS, the Governor of the State of Illinois certified on _____ that the State of Illinois (hereinafter referred to as the State) has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by this Agreement, and that the State desires to assume regulatory responsibility for such materials; and,

WHEREAS, the Commission found on _____ that the program of the State for the regulation of the materials covered by this Agreement is compatible with the Commission's program for the regulation of such materials and is adequate to protect the public health and safety; and,

WHEREAS, the State and the Commission recognize the desirability and importance of cooperation between the Commission and the State in the formulation of standards for protection against hazards of radiation and in assuring that State and Commission programs for protection against hazards of radiation will be coordinated and compatible; and,

WHEREAS, the Commission and the State recognize the desirability of reciprocal recognition of licenses and exemptions from licensing of those materials subject to this Agreement; and,

WHEREAS, this Agreement is entered into pursuant to the provisions of the Atomic Energy Act of 1954, as amended;

NOW, THEREFORE, IT IS HEREBY AGREED between the Commission and the Governor of the State, acting in behalf of the State as follows:

Article I

Subject to the exceptions provided in Articles II, IV and V, the Commission shall discontinue, as of the effective date of this Agreement, the regulatory authority of the Commission in the State under Chapters 6, 7 and 8, and Section 161 of the Act with respect to the following:

A. Byproduct material as defined in section 11e.(1) of the Act;

B. Source materials;

C. Special nuclear materials in quantities not sufficient to form a critical mass; and,

D. The land disposal of source, byproduct and special nuclear material received from other persons.

Article II

This Agreement does not provide for discontinuance of any authority and the Commission shall retain authority and

responsibility with respect to regulation of:

A. The construction and operation of any production or utilization facility;

B. The export from or import into the United States of byproduct, source or special nuclear material, or of any production or utilization facility;

C. The disposal into the ocean or sea of byproduct, source or special nuclear waste materials as defined in regulations or orders of the Commission;

D. The disposal of such other byproduct, source, or special nuclear material as the Commission from time to time determines by regulation or order should, because of the hazards or potential hazards thereof, not be so disposed of without a license from the Commission; and,

E. The extraction or concentration of source material from source material ore and the management and disposal of the resulting byproduct material.

Article III

This Agreement may be amended, upon application by the State and approval by the Commission, to include the additional area specified in Article II, paragraph E, whereby the State can exert regulatory control over the materials stated therein.

Article IV

Notwithstanding this Agreement, the Commission may from time to time by rule, regulation or order, require that the manufacturer, processor, or producer of any equipment, device, commodity, or other product containing source, byproduct or special nuclear material shall not transfer possession or control of such product except pursuant to a license or an exemption from licensing issued by the Commission.

Article V

This Agreement shall not affect the authority of the Commission under subsection 161 b. or i. of the Act to issue rules, regulations or orders to protect the common defense and security, to protect restricted data or to guard against the loss or diversion of special nuclear material.

Article VI

The Commission will use its best efforts to cooperate with the State and other Agreement States in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that State and Commission programs for protection against hazards of radiation will be coordinated and compatible. The State will use its best efforts to cooperate with the Commission and other Agreement States in the formulation of standards and regulatory

programs of the State and the Commission for protection against hazards of radiation and to assure that the State's program will continue to be compatible with the program of the Commission for the regulation of like materials. The State and the Commission will use their best efforts to keep each other informed of proposed changes in their respective rules and regulations and licensing, inspection and enforcement policies and criteria and to obtain the comments and assistance of the other party thereon.

Article VII

The Commission and the State agree that it is desirable to provide reciprocal recognition of licenses for the materials listed in Article I licensed by the other party or by any Agreement State. Accordingly, the Commission and the State agree to use their best efforts to develop appropriate rules, regulations and procedures by which such reciprocity will be accorded.

Article VIII

The Commission, upon its own initiative after reasonable notice and opportunity for hearing to the State, or upon request of the Governor of the State, may terminate or suspend all or part of this Agreement and reassert the licensing and regulatory authority vested in it under the Act if the Commission finds that (1) such termination or suspension is required to protect the public health and safety, or (2) the State has not complied with one or more of the requirements of Section 274 of the Act. The Commission may also, pursuant to Section 274j of the Act, temporarily suspend all or part of this Agreement if, in the judgment of the Commission, an emergency situation exists requiring immediate action to protect public health and safety and the State has failed to take necessary steps. The Commission shall periodically review this Agreement and actions taken by the State under this Agreement to ensure compliance with Section 274 of the Act.

Article IX

This Agreement shall become effective on _____, and shall remain in effect unless and until such time as it is terminated pursuant to Article VIII.

Done at _____, in triplicate, this _____ day of _____.

For the United States Nuclear Regulatory Commission.

Chairman

For the State of Illinois.

Governor

[FR Doc. 86-29382 Filed 12-30-86; 8:45 am]

BILLING CODE 1505-01-T

24 CFR Part 3280

Thursday
February 12, 1987

Part II

Department of Housing and Urban Development

Office of the Assistant Secretary for
Housing—Federal Housing Commissioner

24 CFR Part 3280

Manufactured Home Construction and
Safety Standards; Final Rule

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Housing—Federal Housing Commissioner

24 CFR Part 3280

[Docket No. R-87-1274; FR-2137]

Manufactured Home Construction and Safety Standards

AGENCY: Office of the Assistant Secretary for Housing—Federal Housing Commissioner, HUD.

ACTION: Final rule.

SUMMARY: HUD is revising its Manufactured Home Construction and Safety Standards to incorporate current and more appropriate reference standards and to delete specific entrance location and placement requirements for water, drain, gas, and electric utility connections for manufactured homes.

EFFECTIVE DATE: August 11, 1987. The incorporation by reference of new publications listed in the supplementary information section is designated by a dagger (†). These publications are approved by the Director of the Federal Register as of August 11, 1987.

FOR FURTHER INFORMATION CONTACT: Mark W. Holman, Manufactured Housing and Construction Standards Division, Department of Housing and Urban Development, 451 Seventh Street, SW., Room 9156, Washington, DC 20410-8000. Telephone (202) 755-6590. (This is not a toll-free number.)

SUPPLEMENTARY INFORMATION:

I. Background

The National Manufactured Housing Construction and Safety Standards Act of 1974, 42 U.S.C. 5401-27 (Act), authorized the Secretary of Housing and Urban Development (Secretary) to establish and amend the Federal manufactured home construction and safety standards, 24 CFR Part 3280 (Standards). The stated purposes of the Act are "to reduce the number of personal injuries and deaths and the amount of insurance costs and property damage resulting from manufactured home accidents and to improve the quality and durability of manufactured homes." 42 U.S.C. 5401. Changes to the reference standards and to the utility entrance and drain location requirements are being adopted in accordance with these purposes. In accordance with the Act, these rules

will take effect 180 days from the date of this publication. 42 U.S.C. 5403(c).

A. Advance Notice of Proposed Rule Making

The Department published an Advance Notice of Proposed Rule Making (ANPRM) on June 7, 1979, soliciting comment concerning revision of the Standards (44 FR 32711). Generally, the industry responded that cost effectiveness and clarity of objectives should be the Department's primary concerns in evaluating the need for change in the safety and durability areas cited in the ANPRM. Consumers and associated groups expressed the view that manufactured homes lacked the qualities necessary to make the home as durable and safe as they desire.

B. Proposed Rule

On August 16, 1983, the Department published a proposed rule revising all Subparts of the Standards (48 FR 37136). The comment period was held open until 30 days after a Cost Impact Analysis was made available for public inspection. On March 9, 1984, a Notice of the availability of the Cost Impact Analysis was published (49 FR 8946). Accordingly, the comment period closed on April 9, 1984. The Department received 258 comments, many of them extensive.

The Department expedited processing of the formaldehyde standard and certain portions of the standards relating to fire safety. A final rule with respect to those issues was published on August 9, 1984 (49 FR 31996). Comments concerning those issues were discussed in the preamble to the 1984 final rule.

The Department is now proceeding to final rulemaking on the referenced standards and utility entrance requirements. The comments relating to these issues are discussed below. The Department is continuing its review of the remaining comments and will take appropriate action on additional proposed standards when the analysis is complete.

C. The National Manufactured Home Advisory Council

The Act provides for a National Manufactured Home Advisory Council comprised of 24 members divided equally among the industry, government agencies, and consumer groups. The Act directs the Secretary to consult, to the extent feasible, with the Advisory Council before establishing, amending, or revoking any standard (42 U.S.C. 5404(b)).

In September 1983, the Council was convened to review the proposed revisions that had been published in August 1983. Subcommittees of the Council met in workshop sessions for three days and then presented reports that were voted upon by the full Council. Several changes were made to the rule based upon the Council's recommendations. (Copies of the Advisory Council subcommittee reports are part of the Department's rulemaking record and are available for public inspection.)

The Advisory Council supported updating the referenced standards and making the changes to the utility entrance requirements that are contained in this final rule.

II. The Final Rule

A. Referenced Standards

On December 18, 1975, the Department published a revised final rule establishing the Standards (40 FR 58752). The Standards, which are codified at 24 CFR Part 3280, first became effective on June 15, 1976. Since that time the referenced standards have not been updated.

In general, more recent editions of the referenced standards have been published by the various issuing organizations. Others are no longer in general use. In a few cases, the sponsorship of a particular referenced standard has been transferred to a different organization. As a result of these changes, the Department has concluded that it is appropriate to update the referenced standards. Public comments generally supported the use of the most recent and most commonly used referenced standards. Further, OMB Circular A-119 directs Federal agencies to use and participate in the development of voluntary Standards whenever appropriate. Negative comments will be addressed in the section of this preamble dealing with specific referenced standards changes.

The following is a table showing the referenced standards incorporated by this final rule. The standards are listed by organization, and the table indicates the section of the manufactured home construction and safety standard in which each standard is referenced. An asterisk to the left of a standard means that this final rule is incorporating a later edition than the one indicated in the proposed rule. A dagger (†) appears before each new IBR approved by the Director of the Federal Register on August 11, 1987.

24 CFR Chapter XX (Parts 3200 to 3299)—Department of Housing and Urban Development—Office of the Assistant Secretary for Housing—Federal Housing Commissioner

Standards by Issuing Organization

24 CFR Section

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*AAMA 1701.2-1985, Primary Window and Sliding Glass Door Voluntary Standard for Utilization in Manufactured Housing.....	3280.403(b) 3280.403(e) 3280.403(e)(2) 3280.404(b)
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*ANSI A112.19.5-1979, Trim for Water Closet Bowls, Tanks, and Urinals.....	3280.604(a)
*ANSI/AHA A135.4-1982, Basic Hardboard.....	3280.304(b)(1)
*ANSI/AHA A135.5-1982, Prefinished Hardboard Paneling.....	3280.304(b)(1)
*ANSI/AHA A135.6-1984, Hardboard Siding.....	3280.304(b)(1)
*ANSI/AITC A190.1-1983, Structural Glued Laminated Timber.....	3280.304(b)(1)
*ANSI A208.1-1979, Mat-Formed Wood Particleboard.....	3280.304(b)(1)
*ANSI/ASME B1.20.1-1983, Pipe Threads, General Purpose (Inch), adopted 25 October 1984.....	3280.604(a) 3280.703 3280.705(e) 3280.706(d)
ANSI B16.3-1977, Malleable Iron Threaded Fittings.....	3280.604(a)
ANSI B16.4-1977, Cast Iron Threaded Fittings.....	3280.604(a)
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*ANSI B16.18-1984, Cast Copper Alloy Solder-Joint Pressure Fittings.....	3280.604(a)
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*ANSI Z21.1-1982, Household Cooking Gas Appliances.....	3280.703
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*ANSI Z21.15-1979, With Addenda 15a-1981 and 15b-1984, Manually Operated Gas Valves.....	3280.703
*ANSI Z21.19-1983, Refrigerators Using Gas Fuel.....	3280.703
*ANSI Z21.20-1979, With Addenda 20a-1979 and 20b-1982, Automatic Gas Ignition Systems and Components.....	3280.703
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*ANSI Z21.24-1981, With Addenda 24a-1983 and 24b-1985, Metal Connectors for Gas Appliances.....	3280.702(a)(17) 3280.703
*ANSI Z21.40.1-1981, With Addenda 1a-1982, Gas-Fired Absorption Summer Air Conditioning Appliances.....	3280.703
*ANSI Z21.47-1983, Gas-Fired Central Furnaces [Except Direct Vent and Separated Combustion System Central Furnaces].....	3280.714(a)(2) 3280.703
*ANSI Z21.64-1978, Direct Vent Central Furnaces.....	3280.703

24 CFR Chapter XX (Parts 3200 to 3299)—Department of Housing and Urban Development—Office of the Assistant Secretary for Housing—Federal Housing Commissioner—Continued

Standards by Issuing Organization	24 CFR Section
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	3280.405(e)(1)
*ANSI Z97.1-1984, Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings.....	3280.114(b)
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	3280.703
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	3280.703
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	3280.703
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*ASTM B 251-84, Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tubes.....	3280.604(a)
	3280.703
*ASTM B 280-83, Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service.....	3280.703
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	3280.706(b)(3)
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*ASTM C 36-84, Standard Specification for Gypsum Wallboard.....	3280.304(b)(1)
*ASTM C 564-70 (82), Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.....	3280.604(a)
	3280.611(d)(5)
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24 CFR Chapter XX (Parts 3200 to 3299)—Department of Housing and Urban Development—Office of the Assistant Secretary for Housing—Federal Housing Commissioner—Continued

Standards by Issuing Organization

24 CFR Section

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*†QQ-S-781H-1974, With 1977 Amendment 2 and Notice I, Strapping, Steel, and Seals.....	3280.304(b)(1)
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24 CFR Chapter XX (Parts 3200 to 3299)—Department of Housing and Urban Development—Office of the Assistant Secretary for Housing—Federal Housing Commissioner—Continued

<i>Standards by Issuing Organization</i>	<i>24 CFR Section</i>
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B. Windows, Egress Windows and Devices, and Doors

The standards relating to windows and doors have been developed by the American Architectural Manufacturers Association (AAMA). The Department participated in the development process, and, as a result, the proposed standards were revised where appropriate. Revisions were made in response to public comments on the Department's proposed rule and to concerns raised at the Advisory Council meeting in October, 1984.

1. Standard for Windows and Sliding Glass Doors Used in Manufactured Homes

Section 3280.408(c) of the proposed rule would have required that all primary windows and sliding glass doors be installed in accordance with the window or door manufacturer's instructions. Several commenters pointed out that a window manufacturer's installation instructions may not be compatible with the construction practices of the manufactured home industry. Therefore, the final rule, at § 3280.403(c), has been revised to require that windows be installed to ensure proper operation and to provide protection from the weather.

Section 3280.403(i) of the present rule requires that manufacturers use only windows and sliding glass doors which have been certified by their producers in accordance with ANSI Z34.1-1947. Certification requires that the windows and sliding glass doors be tested by an independent quality assurance agency at preproduction and at least twice a year during production. The proposed rule, at § 3280.408(e), would have limited the testing requirements to at least once a year for the largest size window configuration for each design production. The comments revealed that there was some confusion about the certification requirements. The final rule, at § 3280.403(e), does not change the substantive requirements which were proposed; however, it has been written to more clearly state what the testing requirements are. Under the final rule, windows and sliding glass doors must be subjected to two in-plant production inspections per year and one production test per year by an independent quality assurance agency. Tests may be performed at the testing organization's facility or the window manufacturer's facility. Production tests are limited to the largest size window in production at the time of the inspection.

Finally, windows and sliding glass doors still must be certified in accordance with the ANSI standard.

However, the referenced standard has been updated from ANSI Z34.1-1947 to ANSI Z34.1-1982.

2. Standard for Egress Windows for Use in Manufactured Homes

Section 3280.404(b)(3) of the present Standards requires that all egress windows shall have minimum clear dimensions of 22 inches by 22 inches. The proposed rule, at § 3280.106(b), would have required dimensions of 20 inches in width and 24 inches in height. The final rule, at § 3280.404(b), does not contain specific requirements for the dimensions of egress windows. Rather, it references AAMA 1704-1985, "Voluntary Standard Egress Windows for Utilization in Manufactured Housing," which specifies the dimensions set forth in the proposed rule.

Several commenters questioned the need for this revision. However, this change in dimensions will make installation of egress windows easier and, therefore, will reduce production costs. The Department does not have any information which indicates that this change will compromise the safety of the home occupants.

The present Standards have no performance requirements for installed egress windows or devices. Section 3280.409(c)(2) of the proposed rule would have required that each installed egress window or device pass an operational check at the manufactured home factory. Any window or device which failed the operational test would have had to be removed and a suitable replacement installed. Several commenters objected to having to replace defective windows if they could be repaired. The Department agrees that costs will be reduced by permitting repairs of defective windows, and therefore, the final rule permits window repair. Other commenters objected to the operational check requirement, arguing that the window itself has been tested. However, the window certification does not protect against faulty installation and, therefore, the final rule retains the operational check requirement.

3. Standard for Swinging Exterior Passage Doors for Use in Manufactured Homes

The present Standards do not specify certification requirements for swinging exterior passage doors. Section 3280.410(d) of the proposed rule would have required that these doors be listed as conforming with the standards. Several commenters objected to the listing requirement as an unnecessary expense. The Department agrees that

self-certification would be adequate to assure that swinging exterior doors comply with the referenced standard. Therefore, the final rule, at § 3280.405(e), allows such self-certification. The doors must be certified in accordance with ANSI 34.1-1982, the same standard referenced for windows and sliding glass doors. The certification procedures are the same as those for windows and sliding glass doors. Exterior swinging doors must be subjected to preproduction testing in accordance with AAMA 1702.2-1985, two in-plant inspections per year and one production test per year. Tests must be performed by independent quality assurance agencies.

The present Standards have no flame spread requirements for doors. Section 3280.410(c) of the proposed rule would have added a requirement that the foam core of exterior doors have a flame spread of 75 or less. Several commenters objected to this requirement, claiming that it would provide minimal fire protection and increase material costs. The Department reevaluated this provision in light of these comments and decided to delete it.

Section 3280.405(d) of the present Standards contains the requirements relating to the materials used in and methods of construction of wood exterior doors. These requirements were retained in the proposed rule in 3280.410(c), with the only change being that the standards incorporated by reference were updated. Among these proposed referenced standards was AAMA 1702.2-1982, Swinging Exterior Passage Doors Voluntary Standard for Utilization in Manufactured Homes. (In the proposed rule this standard was mistakenly identified as AAMA 1702.3-1982, 48 FR 37168, August 16, 1983). One commenter suggested that since AAMA 1702.2-1982 requires compliance with many of the other standards referenced in this section, it is unnecessarily duplicative to list them in the Federal regulations. Accordingly, § 3280.405(c) has been revised to delete those referenced standards for design and construction of exterior doors which are already referenced in AAMA 1702.2-1985 in the final rule.

C. Electrical Service

Section 3280.801 of the present Standards, by reference to NFPA No. 70 Article 550, does not permit the installation of electrical service equipment on manufactured homes. To reduce the cost of providing electrical service to the homes by eliminating the need to contract for an adjacent service assembly, the proposed rule, at

§ 3280.804(c), would have allowed this equipment to be mounted on homes intended to be permanently sited. The proposed rule, however, did not permit the mounting of such equipment on homes with metallic siding.

Several commenters suggested that the Department need only reference Article 230 of NFPA No. 70 to incorporate this change to the standards. This industry standard, however, does not contain all the specific requirements which the Department believes are necessary to insure safe and proper installation and grounding of the electrical service equipment. Therefore, the final rule, at § 3280.803(k)(3), specifies how the equipment must be installed.

Several commenters objected to the prohibition on the installation of electrical service equipment on homes with metallic siding. The Department was originally concerned that the equipment could not be effectively grounded on these homes. At the Advisory Council meeting in 1984, however, the housing industry demonstrated to the Department's satisfaction that, based on their experience, electrical service equipment can be safely mounted on homes with metallic siding. The final rule, therefore, does not contain this prohibition.

The proposed rule, at § 3280.804(c)(4), would have required that exterior equipment be listed as rainproof or raintight. Several commenters requested that this provision be clarified. Therefore, in the final rule, at § 3280.803(k)(3)(ii), the Department specifies that exterior equipment, or the enclosure in which it is installed, must be weatherproof and installed in accordance with the provision in Article 373-2 of NFPA No. 70 and the conductors shall be suitable for use in wet locations.

D. Location of Utility Connections

The present Standards specify where utility connections must be located. (See 24 CFR 3280.609(b) (water), 3280.610(c) (drain), 3280.705(i) (gas) and 3280.803(i) (electrical).) The proposed rule removed these requirements. Several concerns were raised regarding these provisions in the public comments and by the Advisory Council. Most significantly, commenters said that the utility location requirements add substantially to the cost of permanently-sited manufactured homes when the requirements are incompatible with the service connection entrance points provided at the manufactured home site location. Given the range of home sizes now being produced and the increase in the number of homes being permanently

situated in manufactured home parks and subdivisions, this problem is becoming more common. Therefore, the Department has deleted these utility connection location requirements from the final rule.

E. Electrical Systems

Subpart I of the present standards, Electrical Systems, incorporates the 1975 edition of the National Electrical Code (NEC). The proposed rule referenced the 1981 NEC. In response to public comments and the Advisory Council's recommendation, Subpart I of the final rule has been amended to incorporate the latest edition of the NEC, NFPA No. 70-1984. The 1984 code does not change the minimum requirements pertaining to manufactured housing; however, it does permit the use of improved technology in several areas. For example, the 1984 edition allows manufacturers to use listed splice devices for circuit junctions. This, and other changes, will result in significant cost savings to home manufacturers.

F. Modular Homes

Section 3280.7 of the present standards, the modular home exemption, has been deleted in the final rule. The modular home exemption remains in the Manufactured Home Procedural and Enforcement Regulations, 24 CFR 3282.12. The removal of the exemption from Part 3280 has no substantive effect.

III. Miscellaneous

The information collection requirements contained in Part 3280 have been approved by the OMB and the OMB approval numbers are displayed in the text of the existing regulations. The final rule contains no new or altered information collection requirements.

This rule does not constitute a "major rule" as that term is defined in Section 1(b) of the Executive Order on Federal Regulation issued by the President on February 17, 1981. The rule does not: (1) Have an annual effect on the economy of one hundred million dollars or more; (2) cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies or geographic regions; or (3) have a significant adverse effect on competition, employment, investment, productivity, innovation or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

Pursuant to the provisions of 5 U.S.C. 605(b) (the Regulatory Flexibility Act), the Undersigned hereby certifies that

this rule does not have a significant economic impact on a substantial number of small entities. The Department has done a cost analysis which demonstrates that the economic impact is insignificant.

A Finding of No Significant Impact with respect to the environment has been made in accordance with HUD regulations in 24 CFR Part 50, which implement section 102(2)(C) of the National Environmental Policy Act of 1969. The Finding of No Significant Impact is available for public inspection during regular business hours at the Office of the Rules Docket Clerk at Room 10276, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410.

This rule was listed as item 872 in the Department's Semiannual Agenda of Regulations published at (51 FR 38424, 38453) on October 27, 1986, under Executive Order 12291 and the Regulatory Flexibility Act.

List of Subjects in 24 CFR Part 3280

Fire prevention, Housing standards, Manufactured homes, Incorporation by reference.

PART 3280—[AMENDED]

Accordingly, 24 CFR Part 3280 is amended as follows:

1. The authority citation for 24 CFR Part 3280 continues to read as follows:

Authority: Secs. 604 and 625 of the National Manufactured Housing Construction and Safety Standards Act of 1974, 42 U.S.C. 5403 and 5424; sec. 7(d) of the Department of Housing and Urban Development Act, 42 U.S.C. 3535(d).

2. Section 3280.4(b) is revised to read as follows:

§ 3280.4 Incorporation by reference.

(b) The abbreviations, and addresses of organizations issuing the referenced standards appear below. Reference standards which are not available from their producer organizations may be obtained from the Office of Manufactured Housing and Construction Standards, Manufactured Housing Standards Division, U.S. Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410.

AA—Aluminum Association, 818 Connecticut Avenue, NW., Washington, DC 20006

AGA—American Gas Association, 1515 Wilson Boulevard, Arlington, Virginia 22209

AAMA—American Architectural Manufacturers Association, 2700 River Road, Suite 118, Des Plaines, Illinois 60018

AISC—American Institute of Steel Construction, 400 North Michigan Avenue, Chicago, Illinois 60611

AISI—American Iron and Steel Institute, 1000 16th Street, NW., Washington, DC 20036

AITC—American Institute of Timber Construction, 333 W. Hampden Avenue, Englewood, Colorado 80110

ANSI—American National Standards Institute, 1430 Broadway, New York, New York 10018

APA—American Plywood Association, P.O. Box 11700, Tacoma, Washington 98411

ARI—Air Conditioning and Refrigeration Institute, 1815 North Ft. Myer Drive, Arlington, Virginia 22209

ASHRAE—American Society of Heating, Refrigeration and Air Conditioning Engineers, 1791 Tullie Circle, NE., Atlanta, Georgia 30329

ASME—American Society of Mechanical Engineers, 345 East 47th Street, New York, New York 10017

ASTM—American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103

CISPI—Cast Iron Soil Pipe Institute, 1499 Chain Bridge Road, McLean, Virginia 22101

FS—Federal Specifications, General Services Administration, Specifications Branch, Room 6039, GSA Building, 7th and D Streets, SW., Washington, DC 20407

GAL—Gas Appliance Laboratory, 3133 East Olympic Boulevard, Los Angeles, California 90023

HPMA—Hardwood Plywood Manufacturers Association, P.O. Box 2789, Reston, Virginia 22090

HUD—FHA—Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410

IAPMO—International Association of Plumbing and Mechanical Officials, 5032 Alhambra Avenue, Los Angeles, California 90032

IITRI—IIT Research Institute, 10 West 35th Street, Chicago, Illinois 60616

MIL—Military Specifications and Standards, Naval Publications and Forms Center, 5801 Taber Avenue, Philadelphia, Pennsylvania 19120

NFPA—National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269

(N)FPA—National Forest Products Association, 1819 Massachusetts Avenue, NW., Washington, DC 20036

NPA—National Particleboard Association, 2306 Perkins Place, Silver Spring, Maryland 20910

NSF—National Sanitation Foundation, P.O. Box 1468, Ann Arbor, Michigan 48105

NWMA—National Woodwork Manufacturers Association, 205 West Toughy Avenue, Park Ridge, Illinois 60068

PS—Product Standards, U.S. Government Printing Office, Washington, DC 20410

SAE—Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, Pennsylvania 15096

SJI—Steel Joist Institute, Suite A, 48 Avenue North, Myrtle Beach, South Carolina 29577

TPI—Truss Plate Institute, 100 West Church Street, Frederick, Maryland 21701

UL—Underwriters' Laboratories, Inc., 333 Pfingsten Road, Northbrook, Illinois 60062

3. Section 3280.7 is revised to read as follows:

§ 3280.7 Excluded structures.

Certain structures may be excluded from these Standards as modular homes under 24 CFR 3282.12.

4. Section 3280.8(c) is revised to read as follows:

§ 3280.8 Certification label.

(c) The label shall read as follows:

As evidenced by this label No. ABC 000001, the manufacturer certifies to the best of the manufacturer's knowledge and belief that this manufactured home has been inspected in accordance with the requirements of the Department of Housing and Urban Development and is constructed in conformance with the Federal manufactured home construction and safety standards in effect on the date of manufacture. See data plate.

However, labels containing the language specified in 24 CFR 3282.362 as issued on May 13, 1976, at 41 FR 19869, shall be used until inventories held by IPHA's as of December 31, 1976, are exhausted, except that all labels applied to manufactured homes on or after June 30, 1977, shall contain the language set out herein.

5. In section 3280.106, the section heading and paragraph (a) are revised to read as follows:

§ 3280.106 Exit facilities; egress windows and devices.

(a) Every room designed expressly for sleeping purposes, unless it has an exit door (see § 3280.105), shall have at least one outside window or approved exit device which meets the requirements of § 3280.404, the "Standard for Egress Windows and Devices for Use in Manufactured Homes."

6. Section 3280.114(b) is revised to read as follows:

§ 3280.114 Glass and glazed openings.

(b) *Safety glazing.* Glazing in all entrance or exit doors, sliding glass doors, units (fixed or moving sections), unframed glass doors, unbacked

mirrored wardrobe doors (i.e., mirrors not secured to a backing capable of being the door itself), shower and bathtub enclosures and surrounds to a height of 6 feet above the bathroom floor level, storm doors or combination doors, and in panels located within 12 inches on either side of exit or entrance doors shall be of a safety glazing material. Safety glazing material is considered to be any glazing material capable of passing the requirements of Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings, ANSI Z97.1-1984.

7. Section 3280.203(a) is revised to read as follows:

§ 3280.203 Flame spread limitations and fire protection requirements.

(a) Establishment of flame spread rating. The surface flame spread rating of interior-finish material shall not exceed the values shown in § 3280.203(b) when tested by "Standard Test Method for Surface Burning Characteristics of Building Materials, ASTM E 84-84," except that the surface flame spread rating of interior-finish materials required by § 3280.203(b) (5) and (6) may be determined by using the "Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source, ASTM E 162-83." However, the following materials need not be tested to establish their flame spread rating unless a lower rating is required by these standards.

8. Section 3280.208(c) is revised to read as follows:

§ 3280.208 Fire detection equipment.

(c) *Labeling.* Smoke detectors shall be labeled as conforming with the requirements of Underwriters' Laboratories Standard No. 217—Third Edition 1985, as amended through October 8, 1985, for "Single and Multiple Station Smoke Detectors."

9. Section 3280.304(b)(1) is revised to read as follows:

§ 3280.304 Materials.

(b)(1) Standards for some of the generally used materials and methods of construction are listed in the following table.

Aluminum Construction Manual, Sec. 1, Specifications for Aluminum Structures AA-1982

Steel:
Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings AISC S326-1978

The following parts of this reference standard are not applicable: 1.3.3, 1.3.4, 1.3.5, 1.3.6, 1.4.6, 1.5.1.5, 1.5.5, 1.6, 1.7, 1.8, 1.9, 1.10.4 through 1.10.7, 1.10.9, 1.11, 1.13, 1.14.5, 1.17.7 through 1.17.9, 1.19.1, 1.19.3, 1.20, 1.21, 1.23.7, 1.24, 1.25.1 through 1.25.5, 1.26.4, 2.3, 2.4, 2.8 through 2.10.	
The New and the Old Specification for the Design of Cold-Formed Steel Structural Members.....	AISI-1980
The following parts of this reference standard are not applicable: 3.1.2, 4.2.1, 4.2.4.	
Stainless Steel Cold-Formed Structural Design Manual, Part I, Structural Members: Specifications for the Design of Light Gage Cold-Formed Stainless Steel Structural Members, except 3.1.2.	AISI-1974
Standard Specifications Load Tables and Weight Tables for Steel Joists and Joist Girders, only sections 1-6 and the table for "H series only" are applicable.	SJI-1986
Manual for Structural Applications of Steel Cables for Buildings.....	AISI-1973
Strapping, Steel, and Seals, with Notice #1 and Amendment #2, only type 1, Finish B, Grade I of the plating/coating sections are applicable.	FS QQ-S-781H-1974 With 1977 Amendment 2 and Notice I
Wood and Wood Products:	
Basic Hardboard.....	ANSI/AHA A135.4-1982
Prefinished Hardboard Paneling.....	ANSI/AHA A135.5-1982
Hardboard Siding.....	ANSI/AHA A135.6-1984
Hardwood and Decorative Plywood.....	ANSI/HPMA-HP-1983
Structural Design Guide for Hardwood Plywood Wall Panels.....	HPMA-HP-SG-1984
Structural Glued Laminated Timber.....	ANSI/AITC A190.1-1983
Construction and Industrial Plywood.....	PS-1-83
APA Design/Construction Guide, Residential and Commercial.....	APA-1985
Design and Fabrication of All-Plywood Beams, Suppl. 5.....	APA-1984
Plywood Design Specification.....	APA-1985
Design and Fabrication of Plywood Lumber Beams, Suppl. 2.....	APA-1984
Design and Fabrication of Plywood Curved Panels, Suppl. 1.....	APA-1985
Design and Fabrication of Plywood Sandwich Panels, Suppl. 4.....	APA-1982
Design and Fabrication of Plywood Stressed Skin Panels, Suppl. 3.....	APA-1984
National Design Specification for Wood Construction.....	(N)FPA-1982 with 1982 Supplement and 1984 Amendment
Wood Structural Design Data.....	(N)FPA-1978
Span Tables for Joists and Rafters (PS 20-70).....	(N)FPA-1977
Design Values for Joists and Rafters.....	(N)FPA-1981
Design Specifications for Metal Plate Connected Wood Trusses.....	TPI-1985
Standard for Particleboard for Mobile Home Decking.....	NPA-1-82
Mat-formed Wood Particleboard.....	ANSI A208.1-1979
Wood Flush Doors.....	ANSI/NWMA I.S.1-80, With 1983 Addendum
Wood Window Units.....	ANSI/NWMA I.S. 2-80, With 1984 Addendum
Wood Sliding Patio Doors.....	ANSI/NWMA I.S. 3-83
Water Repellant Preservative Treatment for Millwork.....	NWMA I.S. 4-81
Standard Test Methods for Puncture and Stiffness of Paperboard, and Corrugated and Solid Fiberboard. Exception, the puncture resistance inch-pound value provided in Section 3280.306 shall be used.	ASTM D 781-68(73)
Standard Test Methods for Moisture Content of Wood, only Test Method B is applicable.....	ASTM D 2016-74(83)
Other: Standard Specification for Gypsum Wallboard.....	ASTM C 36-84
Fasteners:	
Nails, Brads, Staples and Spikes, Wire, Cut and Wrought, except packing and shipping provisions.....	FS FF-N-105B-1971 With 1977 Amendment 4
Application and Fastening schedule: Power-Driven, Mechanically Driven and Manually Driven Fasteners.....	HUD-FHA Use of Materials Bulletin- UM-25d-73
Unclassified: Building Code Requirements for Minimum Design Loads in Buildings and Other Structures.....	ANSI A58.1-1982
Windows and Glazing: Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings.	ANSI Z97.1-1984

* * * * *

10. Sections 3280.305(g)(4) and 3280.305(i)(1)(i) are revised to read as follows:

§ 3280.305 Structural design requirements.

- * * * * *
- (g) * * *
- (4) Bottom board material (with or without patches) shall meet or exceed

the level of 48 inch-pounds of puncture resistance as tested by the Beach Puncture Test in accordance with Standard Test Methods for Puncture and Stiffness of Paperboard, and Corrugated and Solid Fiberboard, ASTM D-781-

1968 (73). The material shall be suitable for patches and the patch life shall be equivalent to the material life. Patch installation instruction shall be included in the manufactured home manufacturer's instructions.

(i) * * *

(1) *Welded connections.* (i) All welds shall be made in accordance with the applicable provisions of the Specification For The Design, Fabrication, And Erection Of Structural Steel For Buildings, AISC-S326-1978, The New and the Old Specification for the Design of Cold-Formed Steel Structural Members, AISI-1980 and the Stainless Steel Cold-Formed Structural Design Manual, AISI-1974.

11. Section 3280.306(g)(2) is revised to read as follows:

§ 3280.306 Windstorm protection.

(g) * * *

(2) Type 1, Finish B, Grade 1 steel strapping, 1 1/4 inches wide and 0.035 inch thick, conforming with Federal Specification QQ-S-781H-1974, with 1977 Amendment 2 and Notice I, Strapping, Steel, and Seals, is judged to conform with the provisions of this section and paragraph (f) of this section.

12. Section 3280.403 is revised to read as follows:

§ 3280.403 Standard for windows and sliding glass doors used in manufactured homes.

(a) *Scope.* This section sets the requirements for prime windows and sliding glass doors except for windows used in entry doors. Windows so mounted are components of the door and thus are excluded from this standard.

(b) *Standard.* All primary windows and sliding glass doors shall comply with AAMA standard 1701.2-85, Primary Window and Sliding Glass Door Voluntary Standard for Utilization in Manufactured Housing.

(c) *Installation.* All primary windows and sliding glass doors shall be installed in a manner which allows proper operation and provides protection against the elements (see § 3280.307).

(d) *Glass.* (1) Safety glazing materials, where used, shall meet ANSI Z97.1-1984, "Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings."

(2) Sealed insulating glass, where used, shall meet all performance requirements for class C in accordance with ASTM E-774-84a, Standard

Specification for Sealed Insulating Glass Units. The sealing system shall be qualified in accordance with ASTM E-773-83, Standard Test Method for Seal Durability of Sealed Insulating Glass Units. Each glass unit shall be permanently identified with the name of the insulating glass manufacturer.

(e) *Certification.* All primary windows and sliding glass doors to be installed in manufactured homes shall be certified as complying with AAMA Standard 1701.2-1985.

(1) All such windows and doors shall show evidence of certification by affixing a quality certification label to the product in accordance with ANSI Z34.1-1982, "For Certification-Third-Party Certification Program."

(2) In determining certifiability of the products, an independent quality assurance agency shall conduct preproduction specimen tests in accordance with AAMA 1701.2-1985. Further, such agency shall inspect the product manufacturer's facility at least twice per year. One of these inspections shall include production unit testing of the largest size of each design available at the time of the inspection. It is not necessary to perform such production unit tests at the product manufacturer's facility.

13. Section 3280.404 is revised to read as follows:

§ 3280.404 Standard for egress windows and devices for use in manufactured homes.

(a) *Scope and purpose.* The purpose of this section is to establish the requirements for the design, construction, and installation of windows and approved devices intended to be used as an emergency exit during conditions encountered in a fire or similar disaster.

(b) *Performance.* Egress windows including auxiliary frame and seals, if any, shall meet all requirements of AAMA 1701.2-1985, "Primary Window and Sliding Glass Door Voluntary Standard for Utilization in Manufactured Housing," and AAMA 1704-1985, "Voluntary Standard Egress Window Systems for Utilization in Manufactured—Housing."

(c) *Installation.* (1) The installation of egress windows or devices shall be installed in a manner which allows for proper operation and provides protection against the elements. (See § 3280.307.)

(2) An operational check of each installed egress window or device shall be made at the manufactured home factory. All egress windows and devices shall be openable to the minimum required dimension without binding or

requiring the use of tools. Any window or device failing this check shall be repaired or replaced. A repaired window shall conform to its certification. Any repaired or replaced window or device shall pass the operational check.

(d) *Operating instructions.* Operating instructions shall be affixed to each egress window and device and carry the legend "Do Not Remove."

(e) *Certification of Egress Windows and Devices.* Egress windows and devices shall be listed in accordance with the procedures and requirements of AAMA 1704-1985.

14. Section 3280.405 is amended by revising paragraphs (b), (c), (d), and (e), to read as follows:

§ 3280.405 Standard for swinging exterior passage doors for use in manufactured homes.

(b) *Performance requirements.* The design and construction of exterior door units shall meet all requirements of AAMA 1702.2-1985, Swinging Exterior Passage Doors Voluntary Standard for Utilization in Manufactured—Housing.

(c) *Materials and methods.* Any material or method of construction shall conform to the performance requirements as outlined in paragraph (b) of this section. Wood materials or wood based materials shall also conform to the following:

(1) *Wood.* Doors shall conform to the type 1 requirements of "ANSI/NWMA I.S.1-80, With 1983 Addendum, Wood Flush Doors."

(2) *Plywood.* Plywood shall be exterior type and preservative treated in accordance with "NWMA I.S. 4-81, Water Repellent Preservative Treatment for Millwork."

(d) *Exterior doors.* All swinging exterior doors shall be installed in a manner which allows proper operation and provides protection against the elements (see § 3280.307).

(e) *Certification.* All swinging exterior doors to be installed in manufactured homes shall be certified as complying with AAMA Standard 1702.2-1985.

(1) All such doors shall show evidence of certification by affixing a quality certification label to the product in accordance with ANSI Z34.1-1982, "For Certification-Third-Party Certification Program."

(2) In determining certifiability of the products, an independent quality assurance agency shall conduct preproduction specimen tests in accordance with AAMA 1702.2-1985. Further, such agency shall inspect the product manufacturer's facility at least

twice per year. One of these inspections shall include production unit testing of the largest size of each design available at the time of the inspection. It is not necessary to perform such production unit tests at the product manufacturer's facility.

15. Section 3280.508 is revised to read as follows:

§ 3280.508 Heat loss, heat gain and cooling load calculations.

Information, values and data necessary for heat loss and heat gain determinations shall be taken from the 1981 ASHRAE Handbook of Fundamentals, chapters 20, 21, 22, 23, 25, 26, and 35. The following portions of those chapters are not applicable:

- 20.14 Masonry Construction
- 20.14 Floor Systems
- 20.17 Underground Pipe Insulation
- 20.18 Temperatures Above Ambient, Temperatures Below Ambient
- 20.18 Tanks, Vessels and Equipment
- 20.20 Refrigerated Rooms and Buildings
- 20.24 Part VI Land Transport Vehicles
- 20.27 Part VII Environmental Spaces
- 22.1 Ventilation Requirements, Minimum Outdoor Air Supply Rates
- 22.11 Air Leakage Through Walls of Elevators and Stair Shafts
- 22.13 Swinging Door Entrances
- 22.19 References
- 25.4 Ground Temperature
- 25.4 Crawl Space Temperature
- 25.4 Calculation of Heat Loss From Crawl Spaces
- 25.6 Calculating Transmission of Heat Loss From Basement
- 25.6 Design Temperatures
- 25.8 Calculating Transmission Heat Loss From Floor Slabs
- 25.11 Consideration of Pick-up Load
- 26.37 Heat Gain by Conduction Through Interior Partitions, Ceilings and Floor

16. Section 3280.511 is amended by revising paragraphs (a)(1) and (b) to read as follows:

§ 3280.511 Comfort cooling certificate and information.

(a) * * *

(1) *Alternative 1.* If a central air conditioning system is provided by the home manufacturer, the heat gain calculation necessary to properly size the air conditioning equipment shall be in accordance with procedures outlined in Chapter 22 of the 1981 ASHRAE Handbook of Fundamentals, with an assumed location and orientation. The

following information shall be supplied in the Comfort Cooling Certificate:

"Air Conditioner Manufacturer _____
Air Conditioner Model _____
Certified Capacity _____ BTU/Hr. in accordance with the appropriate Air Conditioning and Refrigeration Institute Standards.

The temperature to be specified shall be 20 F or 30% of the design temperature difference, whichever is greater, added to the temperature specified as the heating system capacity certification temperature without storm windows or insulating glass for Zone I and with storm windows or insulating glass for Zones II and III. Design temperature difference is 70 minus the heating system capacity certification temperature in degrees Fahrenheit.

The central air conditioning system provided with this home has been sized, assuming an orientation of the front (hitch) end of the home facing _____ and is designed on the basis of a 75 F indoor temperature and an outdoor temperature of _____ F dry bulb and F wet bulb."

Example Alternate 1

Comfort Cooling Certificate

Manufactured Home Mfg _____
Plant Location _____
Manufactured Home Model _____
Air Conditioner Manufacturer _____

Certified Capacity _____ BTU/Hr. in accordance with the appropriate Air Conditioning and Refrigeration Institute Standards.

The central air conditioning system provided with this home has been sized assuming an orientation of the front (hitch) end of the home facing _____. On this basis the system is designed to maintain an indoor temperature of 75 F when outdoor temperatures are _____ F dry bulb and F wet bulb.

The temperature to which this home can be cooled will change depending upon the amount of exposure of the windows of this home to the sun's radiant heat. Therefore, the home's heat gains will vary dependent upon its orientation to the sun and any permanent shading provided. Information concerning the calculation of cooling loads at various locations, window exposures and shadings are provided in Chapter 22 of the 1981 edition of the ASHRAE Handbook of Fundamentals."

(b) For each home designated as suitable for central air conditioning the manufacturer shall provide the maximum central manufactured home air conditioning capacity certified in accordance with the Standard for Unitary Air Conditioning Equipment

ARI 210-1981 with 84 addendum and in accordance with § 3280.715(a)(3). If the capacity information provided is based on entrances to the air supply duct at other than the furnace plenum, the manufacturer shall indicate the correct supply air entrance and return air exit locations.

* * *

17. Section 3280.602(a), paragraphs (23), (24) and (43)-(50) are revised to read as follows:

§ 3280.602 Definitions.

(a) * * *

(23) "Flush tank" means that portion of a water closet that is designed to contain sufficient water to adequately flush the fixture.

(24) "Flush valve" means a device located at the bottom of a flush tank for flushing a water closet.

* * *

(43) "Trap" means a fitting or device designed and constructed to provide a liquid seal that will prevent the back passage of air without materially affecting the flow of liquid waste through it.

(44) "Trap Arm" means the portion of a fixture drain between a trap and its vent.

(45) "Trap seal" means the verticle depth of liquid that a trap will retain.

(46) "Vacuum breaker." See Backflow Preventer.

(47) "Vent cap" means the device or fitting which protects the vent pipe from foreign substance with an opening to the atmosphere equal to the area of the vent it serves.

(48) "Vent system" means that part of a piping installation which provides circulation of air within a drainage system.

(49) "Verticle pipe" means any pipe or fitting which makes an angle of not more than 45 degrees with the vertical.

(50) "Water closet drain" means that part of the drainage piping which receives the discharge from each individual water closet.

* * *

18. Section 3280.604(a) is amended by revising the table to read as follows:

§ 3280.604 Materials.

(a) * * *

Materials	ANSI	ASTM	FS	Other
Ferrous pipe and fittings:				
Cast Iron Threaded Fittings	B16.4-1977			
Malleable Iron Threaded Fittings	B16.3-1977			
Material and Property Standard for Special Cast Iron Fittings.				IAPMO PS-5-1984
Welded and Seamless Wrought Steel Pipe	B36.10-1979			

Materials	ANSI	ASTM	FS	Other
Standard Specification for Pipe, Steel, Black and Hot Dipped Zinc-Coated (Galvanized) Welded and Seamless for Ordinary Uses.		A 120-83		
Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.		A 53-83		
Pipe threads, General Purpose (Inch), adopted 25 October 1984.	B1.20.1-1983			
CISPI's Specification for Cast Iron Soil Pipe Institute's Approved Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.				CISPI-310-85
Standard Specification for Cast Iron Soil Pipe and Fittings.		A 74-82	WW-P-401E-1974	
Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.				CISPI-301-85
Nonferrous pipe and fittings:				
Standard Specification for Seamless Copper Pipe, Standard Sizes.		B 42-84		
Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tubes.		B 251-84		
Standard Specification for Seamless Copper Water Tube.		B 88-83a		
Standard Specification for Copper Drainage Tube (DWV).		B 306-83		
Wrought-Copper and Copper Alloy, Solder-Joint Pressure Fittings.	B16.22-1980			
Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings—DWV.	B16.29-1980			
Cast Copper Alloy Solder-Joint Pressure Fittings.....	B16.18-1984			
Cast Copper Alloy Solder-Joint Drainage Fittings—(DWV).	B16.23-1984			
Cast Copper Alloy Fittings for Flared Copper Tubes.....	B16.26-1983			
Standard Specification for Seamless Red Brass Pipe, Standard Sizes.		B 43-84		
Cast Bronze Threaded Fittings 125 and 250 pound.....	B16.15-1978			
Plastic pipe and fittings:				
Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Drain, Waste and Vent Pipe and Fittings.		D 2661-84	L-P-322B-1973 With 1977 Amendment 1	NSF-14-1984
Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe Fittings.		D 2665-82	L-P-320B-1973 With 1977 Amendment 1	NSF-14-1984
Standard Specification for Drain, Waste and Vent (DWV) Plastic Fitting Patterns.		D 3311-82		
Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Drain, Waste, and Vent Pipe Having a Foam Core.		F 628-84		NSF-14-1984
Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot and Cold Water Distribution Systems.		D 2846-82		NSF-14-1984
Standard Specification for Polybutylene (PB) Plastic Hot and Cold Water Distribution Systems.		D 3309-83		NSF-14-1984
Miscellaneous:				
Nipples, Pipe, Threaded.....				
Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.		C 564-70 (82)	WW-N-351-C-1976 With 77 Interim Amendment 1	
Backflow Valves, Prevention Devices.....	A112.14.1-1975			IAPMO/PS-31-1977
Valve, Gate, Bronze, (125, 150 and 200 Pound Threaded Ends, Flange Ends, Solder End and Bronze Ends, for Land Use).				WW-V-54-D1973, With 1977 Interim Amendment 2
Plumbing Fixture Setting Compound.....			ITP 1536A-1975	IAPMO/PS-2-1983
Material and Property Standard for Cast Brass and Tubing P-Traps.				
Relief Valves and Automatic Gas Shut-off Devices for Hot Water Supply Systems.	Z21.22-1979			
Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings.		D 2235-81		NSF-14-1985
Standard Specification for Solvent Cement for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.		D 2564-80		NSF-4-1985
Specification for Neoprene Rubber Gaskets for Hub and Spigot Cast Iron Soil Pipe and Fittings.				CISPI-HSN-85
Plumbing System Components for Mobile Homes and Recreational Vehicles.				NSF-24-1979
Material and Property Standard for Diversion Tees and Twin Waste Elbow.				IAPMO/PS-9-1984
Material and Property Standard for Flexible Copper Water Connectors.				IAPMO/PS-14-1981
Material and Property Standard for Dishwasher Drain Airgaps (Air Breaks).				IAPMO/PS-23-1981
Plumbing fixtures:				
Plumbing Fixtures (General Specifications).....			WW-P-541E/GEN-1980	
Vitreous China Plumbing Fixtures.....	A112.19.2(M)-1982			
Enameled Cast Iron Plumbing Fixtures.....	A112.19.1M-1979			
Porcelain Enameled Formed Steel Plumbing Fixtures.....	A112.19.4(M)-1984			
Plastic Bathtub Units.....	Z124.1-1980			IAPMO/TSC-2-1985
Plastic Shower Receptors and Shower Stalls.....	Z124.2-1980			
Stainless Steel Plumbing Fixtures—Residential Use.	A112.19.3-1976			
Material and Property Standard for Drains for Prefabricated and Precast Showers.				NSF-24-1979
Plastic Lavatories.....	Z124.3-1980			IAPMO/PS-4-1983 NSF-24-1979
Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings.	Z97.1-1984			
Finished and Rough Brass Plumbing Fixture Fittings.....	A112.18.1M-1979			
Trim for Water Closet Bowls, Tanks, and Urinals.....	A112.19.5-1979			
Plastic Water Closets, Bowls and Tanks.....	Z124.4-1983			

19. Section 3280.607(b)(3)(iii) is revised to read as follows:

§ 3280.607 Plumbing fixtures.

(b) ***

(3) ***

(iii) Shower doors and tub and shower enclosures shall be constructed so as to be waterproof and, if glazed, glazing shall comply with the standard for Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings, ANSI Z97.1-1984.

20. Section 3280.609(b)(1) is revised to read as follows:

§ 3280.609 Water distribution system.

(b) *Water outlets and supply connections.* (1) *Water connection.* Each manufactured home with a water distribution system shall be equipped with a ¾ inch threaded inlet connection. This connection shall be tagged or marked "Fresh Water Connection" (or marked "Fresh Water Fill"). A matching cap or plug shall be provided to seal the water inlet when it is not in use, and shall be permanently attached to the manufactured home or water supply piping. When a master cold water shutoff full flow valve is not installed on the main feeder line in an accessible location, the manufacturer's installation

instructions shall indicate that such a valve is to be installed in the water supply line adjacent to the home. When a manufactured home includes expandable rooms or is composed of two or more units, fittings or connectors designed for such purpose shall be provided to connect any water piping. When not connected, the water piping shall be protected by means of matching threaded caps or plugs.

21. Section 3280.610(c)(1) is revised to read as follows:

§ 3280.610 Drainage systems.

(c) *Drain outlets.* (1) Each manufactured home shall have only one drain outlet.

22. Section 3280.611(d)(5) is revised to read as follows:

§ 3280.611 Vents and venting.

(d) ***

(5) Materials for the anti-siphon trap vent shall be as follows: Cap and housing shall be listed acrylonitrile-butadiene-styrene, EWV grade; stem shall be DWV grade nylon or acetal; spring shall be stainless steel wire, type 302; sealing disc shall be neoprene, conforming to the Specification for Neoprene Rubber Gaskets for HUB and Spigot Cast Iron Soil Pipe and Fittings,

CISPI-HSN-85 and ASTM C 564-70 (82), Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings or, silicone rubber, low and high temperature and tear resistant, conforming to Rubber, Silicone, FS ZZ-R-765B-1970, With 1971 Amendment 1; and Liners, Case, and Sheet, Overwrap; Water-Vapor Proof or Waterproof, Flexible, MIL-L-10547E-1975.

23. Section 3280.702(a)(17) is revised to read as follows:

§ 3280.702 Definitions.

(a) ***

(17) "Connector-Gas appliance" means a flexible or semi-rigid connector listed as conforming to ANSI Standard Z21.24-1981, With Addenda 24a-1983 and 24b-1985; Metal Connectors for Gas Appliances, used to convey fuel gas, three feet or less in length (six feet or less for gas ranges), between a gas outlet and a gas appliance in the same room with the outlet.

24. Section 3280.703 is revised to read as follows:

§ 3280.703 Minimum standards.

Heating, cooling and fuel burning appliances and systems in manufactured homes shall be free of defects, and shall conform to applicable standards in the following table unless otherwise specified in this standard. (See § 3280.4)

Appliances	ANSI	UL	Other standards
Central Cooling Air Conditioners		465—Seventh Edition—1984	
Liquid Fuel-Burning Heating Appliances for Mobile Homes and Recreational Vehicles		307A—Fifth Edition—1978	
Electric Air Heaters		1025—Second Edition—1982, as amended through 1985.	
Electric Baseboard Heating Equipment		1042—Second Edition—1983, as amended through 1985.	
Electric Central Air Heating Equipment		1096—Third Edition—1981, as amended through 1984.	
Gas Burning Heating Appliances for Mobile Homes and Recreational Vehicles		307(B)—First Edition—1982, as amended through April 12, 1982.	
Gas Cloths Dryers, Vol. 1, Type 1 Clothes Dryers	Z21.5.1-1982		
Gas-Fired Absorption Summer Air Conditioning Appliances	Z21.40.1-1981, Z21.40.1a-1982		
Gas-Fired Central Furnaces (Except Direct Vent and Separated Combustion System Central Furnaces)	Z21.47-1983		
Household Cooking Gas Appliances	Z21.1-1982		
Refrigerators Using Gas Fuel	Z21.19-1983		
Gas Water Heaters, Vol. 1, Storage Water Heaters with Input Ratings of 75,000 BTU per hour or Less	Z21.10.1-1984, Z21.10.1a-1985, Z21.10.1b-1986		
Heat Pumps		559—Fourth Edition—1985, as amended through Sept. 6, 1985.	
Household Electric Storage Tank Water Heaters		174—Seventh Edition—1983, as amended through 1985.	
Ferrous pipe and fittings:			
Standard Specification for Pipe, Steel, Black and Hot Dipped Zinc-Coated (Galvanized) Welded and Seamless For Ordinary Uses			ASTM A 120-83
Standard Specification for Electric-Resistance-Welded Coiled Steel Tubing for Gas and Fuel Oil Lines			ASTM A 539-83
Pipe Threads, General Purpose (inch), adopted 25 October 1984	B1.20.1-1983		
Welded and Seamless Wrought Steel Pipes	B36.10-1979		
Nonferrous pipe, tubing and fittings:			
Standard Specification for Seamless Copper Water Tube			ASTM B 88-83a
Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service			ASTM B 280-83
Metal Connectors for Gas Appliances	Z21.24-1981, Z21.24a-1983, Z21.24b-1985		
Manually Operated Gas Valves	Z21.15-1979, Z21.15a-1981, Z21.15b-1984		

Appliances	ANSI	UL	Other standards
Standard for Gas Supply Connectors for Manufactured Mobile Homes.			IAPMO/TSC-9-1985
Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tubes.			ASTM B 251-84
Standard Specification for Seamless Copper Pipe, Standard Sizes.			ASTM B 42-84
Direct Vent Central Furnaces.	Z21.64-1976		
Miscellaneous:			
Factory Made Air Ducts and Connectors.		181—Sixth Edition—1984.	
Tube Fittings for Flammable and Combustible Fluids and Refrigeration Service, and Marine Use.		109—Fourth Edition—1978.	
Pigtails, and Flexible Hose Connectors for LP-Gas.		569—Fifth Edition—1980, as amended through 1985.	
Roof Jacks for Mobile Homes and Recreational Vehicles.		311—Fifth Edition—1976, as amended through 1984.	
Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems.	Z21.22-1979		
Automatic Gas Ignition Systems and Components.	Z21.20-1979, Z21.20a-1979, Z21.20b-1982		
Automatic Valves for Gas Appliances.	Z21.21-1974, Z21.21a-1977, Z21.21b-1981		
Gas Appliance Thermostats.	Z21.23-1980		
Gas Vents.		441—Fifth Edition—1979.	
Installation of Oil Burning Equipment (the following sections only):			NFPA31-1983
1-1.			
1-2.			
1-3.			
1-4 except 1-4.1.			
1-5.1.			
1-5.2.			
1-5.4.2.			
1-5.4.3.			
1-5.5.			
1-5.6.			
1-6.			
1-7.2 except 1-7.2.4.			
1-8.			
1-9.			
1-10.1.			
3-1.1.			
3-1.3.			
3-1.4.			
3-1.5.			
3-1.6.			
3-10.			
4-1.3.			
4-1.4.			
4-1.5.			
4-2.			
4-3 except 4-3.2.			
4-4 except 4-4.2, 4-4.5.4, 4-4.6, 4-4.7, 4-4.9 and 4-4.10.			
Appendices B, C and E.			
National Fuel Gas Code.	Z223.1-1984.		
Warm Air Heating and Air Conditioning Systems, except:			NFPA 54-1984
2-2.4.			NFPA-90B-1984
2-3.6.			
Table 3-1.3, section B.			
4-1.6.			
Storage and Handling Liquefied Petroleum Gases (Chapters 1, 2 and Articles 30 and 31 of Chapter 3).			NFPA 58-1983
Flares for Tubing.			
Standard for Unitary Air-Conditioning Equipment.			SAE J533b-1972
Standard for Air-Source Unitary Heat Pump Equipment.			ARI 210-81, With 84 Addendum
Chimneys, Factory Built Residential Type and Building Heating Appliance.		103—Sixth Edition—1983, as amended through 1985.	ARI 240-81, With 1984 Addendum
Factory-Built Fireplaces.		127—Fifth Edition—1983, as amended through 1985.	
Room Heaters, Solid-Fuel Type.		1482—Second Edition—1983.	
Fireplace Stoves.		737—Fifth Edition—1982, as amended through Nov. 9, 1982.	
Standard for Fireplace Stoves for Installation in Mobile Structures.			GAL-1973

25. Section 3280.704(b)(5)(i) is revised to read as follows:

§ 3280.704 Fuel supply systems.

(b) * * *

(5) *LP-gas safety devices.* (i) DOT containers shall be provided with safety relief devices as required by the regulations of the U.S. Department of Transportation. ASME containers shall be provided with relief valves in accordance with subsection 221 of the

Storage and Handling Liquefied Petroleum Gases, NFPA No. 58-1983. Safety relief valves shall have direct communication with the vapor space of the vessel.

* * * * *

26. Section 3280.705 is amended by revising paragraphs (b)(1), (b)(3), (b)(4), (e), (f), (j) and (l)(1) to read as follows:

§ 3280.705 Gas piping systems.

* * * * *

(b) * * *

(1) Steel or wrought-iron pipe shall comply with ANSI Standard B36.10-1979, Welded and Seamless Wrought Steel Pipe. Threaded brass pipe in iron pipe sizes may be used. Threaded brass pipe shall comply with Standard Specification for Seamless Red Brass Pipe, Standard Sizes (ASTM B 43-84).

(3) Copper tubing shall be annealed type, Grade K or L, conforming to the

Standard Specification for Seamless Copper Water Tube (ASTM B 88-83a), or shall comply with the Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service, ASTM B 280-83. When used on systems designed for natural gas, such tubing shall be internally tinned.

(4) Steel tubing shall have a minimum wall thickness of 0.032 inch for tubing of 1/2 inch diameter and smaller and 0.049 inch for diameters 1/2 inch and larger. Steel tubing shall be constructed in accordance with ASTM Standard Specification for Electric-Resistance-Welded Coiled Steel Tubing for Gas and Fuel Oil Lines, ASTM A 539-83, and shall be externally corrosion protected.

(e) *Joints for gas pipe.* All pipe joints in the piping system, unless welded or brazed, shall be threaded joints that comply with Pipe Threads, General Purpose (Inch), adopted 25 October 1984, ANSI/ASME B1.20.1-1983. Right and left nipples or couplings shall not be used. Unions, if used, shall be of ground joint type. The material used for welding or brazing pipe connections shall have a melting temperature in excess of 1,000 F.

(f) *Joints for tubing.* (1) Tubing joints shall be made with either a single or a double flare of 45 degrees in accordance with Flares For Tubing, SAE-J533b-1972 or with other listed vibration-resistant fittings, or joints may be brazed with material having a melting point exceeding 1,000 F. Metallic ball sleeve compression-type tubing fittings shall not be used.

(2) Steel tubing joints shall be made with a double-flare in accordance with Flares For Tubing, SAE-J533b-1972.

(j) *Gas supply connections.* When gas appliances are installed, at least one gas supply connection shall be provided on each home. The connection shall not be located beneath an exit door. Where more than one connection is provided, the piping system shall be sized to provide adequate capacity from each supply connection.

(l) *Gas supply connectors.* (1) LP-Gas. A listed LP-Gas flexible connection conforming to the UL Standard for Pigtailed, and Flexible Hose Connectors for LP-Gas (UL 569-Fifth Edition-1980, as amended through 1985) or equal shall be supplied when the fuel gas piping system is designed for the use of LP-Gas and cylinder(s) and regulator(s) are supplied.

27. Sections 3280.706 (b)(1)-(3) and (d)

§ 3280.706 Oil piping systems.

(b) ***

(1) Steel or wrought-iron pipe shall comply with ANSI B 36.10-1979, Welded and Seamless Wrought Steel Pipe. Threaded copper or brass pipe in iron pipe sizes may be used.

(2) Fittings for oil piping shall be wrought-iron, malleable iron, steel, or brass (containing not more than 75 percent copper).

(3) Copper tubing shall be annealed type, Grade K or L conforming to the Standard Specification for Seamless Copper Water Tube (ASTM B 88-83a), or shall comply with the Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service, ASTM B 280-83.

(d) *Joints for oil piping.* All pipe joints in the piping system, unless welded or brazed, shall be threaded joints which comply with ANSI/ASME B1.20.1-1983, Pipe Threads, General Purpose (Inch). The material used for brazing pipe connections shall have a melting temperature in excess of 1,000 F.

28. Section 3280.707 is amended by revising paragraphs (a)(2), (d), and (f) introductory text to read as follows:

§ 3280.707 Heat producing appliances.

(a) ***

(2) Gas and oil burning comfort heating appliances shall have a flue loss of not more than 25 percent, and a thermal efficiency of not less than that specified in nationally recognized standards (See § 3280.703).

(d) *Performance efficiency.* (1) All automatic electric storage water heaters installed in manufactured homes shall have a standby loss not exceeding 43 watts/meter² (4 watts/ft²) of tank surface area. The method of test for standby loss shall be as described in section 4.3.1 of Household Automatic Electric Storage Type Water Heaters, ANSI C72.1-1972.

(2) All gas and oil-fired automatic storage water heaters shall have a recovery efficiency, E, and a standby loss, S, as described below. The method of test of E and S shall be as described in Section 2.7 of Gas Water Heaters, Vol. I, Storage Water Heaters with Input/Ratings of 75,000 BTU per hour or less, ANSI Z21.10.1-1984, With Addendas ANSI Z21.10.1a-1985 and ANSI Z21.10.1b-1986, except that for oil-fired units, CF=1.0, Q=total gallons of oil consumed and H=total heating value of oil in BTU/gallon.

(f) Oil-fired heating equipment. All oil-fired heating equipment shall conform to liquid fuel-burning heating appliances for UL 307A—Fifth Edition—1987, Liquid Fuel-Burning Heating Appliances for Mobile Homes and Recreational Vehicles, and be installed in accordance with Installation of Oil Burning Equipment, NFPA 31-1983. Regardless of the requirements of the above referenced standards, or any other referenced standards, the following are not required:

29. Section 3280.714(a) (1) and (2) is revised to read as follows:

§ 3280.714 Appliances, cooling.

(a) ***

(1) Mechanical air conditioners shall be rated in accordance with the Standard for Unitary Air Conditioning Equipment (ARI Standard 210-81, With 84 Addendum) and certified by ARI or other nationally recognized testing agency capable of providing follow-up service.

(i) Electric motor-driven unitary cooling systems with rated capacity less than 65,000 BTU/Hr when rated at ARI Standard rating conditions in ARI Standard 210-81, With 84 Addendum, shall show energy efficiency ratio (EER) values not less than 7.2.

(ii) Heat pumps shall be certified to comply with all the requirements of the Standard for Air-Source Unitary Heat Pump Equipment, 240-81 With 84 Addendum. Electric motor-driven vapor compression heat pumps with supplemental electrical resistance heat shall be sized to provide by compression at least 60 percent of the calculated annual heating requirement for the manufactured home being served. A control shall be provided and set to prevent operation of supplemental electrical resistance heat at outdoor temperatures above 40 °F, except for defrost operation.

(iii) Electric motor-driven vapor compression heat pumps with supplemental electric resistance heat conforming to ARI Standard 240-81 With 84 Addendum shall show coefficient of performance ratios not less than shown below:

COP

Outdoor Air Temperature/COP

47 °F	17 °F	0°
2.5	1.7	1.0

(2) Gas-fired absorption air conditioners shall be listed or certified in accordance with ANSI Standard Z21.40.1-1981 "Gas-Fired Absorption

Summer Air Conditioning Appliances" with addenda 1a-1982, and certified by AGA or another nationally recognized testing agency capable of providing follow-up service.

30. Sections 3280.715(e) introductory text and paragraph (e)(1) are revised to read as follows:

§ 3280.715 Circulating air system.

(e) *Registers or grilles.* Fittings connecting the registers or grilles to the duct system shall be constructed of metal or material which complies with the requirements of Class 1 or 2 ducts under UL 181—Sixth Edition—1984, Factory Made Air Ducts and Connectors. Air supply terminal devices (registers) when installed in kitchens, bedrooms, and bathrooms shall be equipped with adjustable closeable dampers. Registers or grilles shall be constructed of metal or conform with the following:

(1) Be made of a material classified 94V-0 or 94V-1 when tested as described in Underwriters' Laboratories, Inc., Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL94—Third Edition—1982, as amended through 1985.

31. Section 3280.801 is amended by revising paragraphs (a) and (b) to read as follows:

§ 3280.801 Scope.

(a) Subpart I of this standard and Part A of Article 550 of the National Electrical Code (NFPA No. 70-1984) cover the electrical conductors and equipment installed within or on manufactured homes and the conductors that connect manufactured homes to a supply of electricity.

(b) In addition to the requirements of this standard and Article 550 of the National Electrical Code (NFPA No. 70-1984), the applicable portions of other Articles of the National Electrical Code shall be followed covering electrical installations in manufactured homes. Wherever the requirements of this standard differ from the National Electrical Code, this standard shall apply.

32. Section 3280.803 is amended by revising paragraphs (h) through (k) to read as follows:

§ 3280.803 Power supply.

(h) The power supply cord shall bear the following marking: "For use with manufactured homes—40 amperes" or

"For use with manufactured homes—50 amperes."

(i) Where the cord passes through walls or floors, it shall be protected by means of conduit and bushings or equivalent. The cord may be installed within the manufactured home walls, provided a continuous raceway is installed from the branch-circuit panelboard to the underside of the manufactured home floor. The raceway may be rigid conduit, electrical metallic tubing or polyethylene (PE), polyvinylchloride (PVC) or acrylonitrile-butadiene-styrene (ABS) plastic tubing having a minimum wall thickness of nominal 1/8 inch.

(j) Permanent provisions shall be made for the protection of the attachment-plug cap of the power supply cord and any connector cord assembly or receptacle against corrosion and mechanical damage if such devices are in an exterior location while the manufactured home is in transit.

(k) Where the calculated load exceeds 50 amperes or where a permanent feeder is used, the supply shall be by means of:

(1) One mast weatherhead installation installed in accordance with Article 230 of the National Electrical Code NFPA No. 70-1984 containing four continuous insulated, color-coded, feeder conductors, one of which shall be an equipment grounding conductor; or

(2) An approved raceway from the disconnecting means in the manufactured home to the underside of the manufactured home with provisions for the attachment of a suitable junction box or fitting to the raceway on the underside of the manufactured home. The manufacturer shall provide in his written installation instructions, the proper feeder conductor sizes for the raceway and the size of the junction box to be used; or

(3) Service equipment installed on the manufactured home in accordance with Article 230 of the National Electrical Code NFPA No. 70-1984; and

(i) The installation shall be completed by the manufacturer except for the service connections, the meter and the grounding electrode conductor;

(ii) Exterior equipment, or the enclosure in which it is installed shall be weatherproof and installed in accordance with Article 373-2 of the National Electrical Code NFPA No. 70-1984. Conductors shall be suitable for use in wet locations;

(iii) The neutral conductor shall be connected to the system grounding conductor on the supply side of the main disconnect in accordance with Articles 250-23, 25, and 53 of NFPA No. 70-1984;

(iv) The manufacturer shall include in its written installation instructions one

method of grounding the service equipment at the installation site;

(v) The minimum size grounding electrode conductor shall be specified in the instructions; and

(vi) A red "Warning" label shall be mounted on or adjacent to the service equipment. The label shall state: Warning—do not provide electrical power until the grounding electrode is installed and connected (see installation instructions).

33. Section 3280.804(d) is revised to read as follows:

§ 3280.804 Disconnecting means and branch-circuit protective equipment.

(d) The disconnecting equipment shall have a rating suitable for the connected load. The distribution equipment, either circuit breaker or fused type, shall be located a minimum of 24 inches from the bottom of such equipment to the floor level of the manufactured home.

34. Section 3280.805(a)(3)(iv) is revised to read as follows:

§ 3280.805 Branch circuits required.

(a) ***

(3) ***

(iv) The rating of range branch circuit shall be based on the range demand as specified for ranges in § 3280.811, Item B(5) of Method 1. For central air conditioning, see Article 440 of the National Electrical Code (NFPA No. 70-1984).

35. Section 3280.806(a)(2) is revised to read as follows:

§ 3280.806 Receptacle outlets.

(a) ***

(2) Installed according to Section 210-7 of the National Electrical Code (NFPA No. 70-1984).

36. Sections 3280.808 (a) and (m) are revised to read as follows:

§ 3280.808 Wiring methods and materials.

(a) Except as specifically limited in this part, the wiring methods and materials specified in the National Electrical Code (NFPA No. 70-1984) shall be used in manufactured homes.

(m) Outlet boxes of dimensions less than those required in Table 370-6(a) of the National Electrical Code (NFPA No. 70-1984) shall be permitted provided the

box has been tested and approved for the purpose.

* * * * *

37. Section 3280.811(b) is revised to read as follows:

§ 3280.811 Calculations.

* * * * *

(b) The following is an optional method of calculation for lighting and appliance loads for manufactured homes

served by single 3-wire 115/230 volt set of feeder conductors with an ampacity of 100 or greater. The total load for determining the feeder ampacity may be computed in accordance with the following table instead of the method previously specified. Feeder conductors whose demand load is determined by this optional calculation shall be permitted to have the neutral load determined by section 220-22 of the

National Electrical Code (NFPA No. 70-1984). The loads identified in the table as "other load" and as "Remainder of other load" shall include the following:

* * * * *

Dated: January 30, 1987.

Thomas T. Demery,
Assistant Secretary for Housing—Federal Housing Commissioner.

[FR Doc. 87-2788 Filed 2-11-87; 8:45 am]

BILLING CODE 4210-27-M