

**INITIAL STATEMENT OF REASONS
FOR
PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT**

**REGARDING THE CALIFORNIA MECHANICAL CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4**

ADOPTION OF THE 2009 UNIFORM MECHANICAL CODE

The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

OVERVIEW

The Office of Statewide Health Planning and Development (OSHPD) is mandated to adopt the most recent edition of model code, as amended by Office, pursuant to Health and Safety Code Section 18928. This proposed rulemaking represents OSHPD's proposal to adopt the 2009 Uniform Mechanical Code (UMC) published by International Association of Plumbing and Mechanical Officials (IAPMO) and carry forward existing California amendments into the 2010 California Mechanical Code (CMC). It was also necessary to propose a few editorial and minor technical modifications to the existing requirements for clarification and consistency within the code as identified below:

STATEMENT OF SPECIFIC PURPOSE AND RATIONALE:

California Chapter 1 and Appendix Chapter 1

"California Chapter 1, General Code Provisions" is being retitled to "Chapter 1, California Administration, Division I". "Appendix Chapter 1, Administration", is being retitled as "Administration, Division II" and is being moved from the back of the code publication to the front and will follow Chapter 1, California Administration, Division I. These changes are meant to provide a more user-friendly format.

Section 203.0 -A- Definitions

"Air relief" - Editorial amendment.

"Authority Having Jurisdiction" – Editorial amendment.

Section 204.0 -B- Definitions

"Building Code"- Editorial amendment.

"Building Official"- Editorial amendment.

Section 209 -G- Definitions

"Galvanized Steel" - See purpose and rational for Section 601.3.

Section 210.0 -H- Definitions

"Health Facilities [OSHPD 1, 2, 3 & 4] - Editorial amendment.

Section 217.0 -O- Definitions

"Occupancy Classification"- This amendment is being repealed. OSHPD is adopting model code language to provide consistency and coordination with the Occupancy Classifications in Title 24, Part 2, California Building Code.

Section 303.2 Room Large in Comparison to Size of Equipment

Section 304.2 of the 2007 CMC is being moved to Section 303.2 in the 2010 CMC. This modification is necessary to make the section number consistent with the 2009 UMC format.

Section 312.0 Water Supply

Editorial amendment.

Section 315.1 Requirements for Hospitals and Optional Services Provided in Correctional Treatment Centers

These amendments are consistent with the nationally recognized standard ANSI/ASHRAE/ASHE Standard 170-2008, Ventilation of Health Care Facilities.

Table 315.0 Heating, Cooling and Relative Humidity Requirements for Sensitive Areas or Rooms

The amendments to this table are consistent with the nationally recognized standard ANSI/ASHRAE/ASHE Standard 170-2008, Ventilation of Health Care Facilities. Footnote 4 is for clarity and coordination with Title 24, Part 2, California Building Code.

Section 316.0 and 316.5 Essential Mechanical Provisions

The purpose of this modification is to provide clarification and consistency with Title 24, Part 3, California Electrical Code.

Section 407.5.1 Variable Air Volume Systems

This amendment provides a less restrictive requirement for hospitals using Variable Air Volume Systems (VAV) for rooms that have no requirement for continuous directional control.

Section 410.1 Laboratory Ventilating Systems and Hoods

2006 AIA Guidelines for Design and Construction of Health Care Facilities. The amendments clarify existing requirements and coordinates with requirements in Title 24, Part 2, California Building Code.

Section 416.1 Alarms – Airborne Infection Isolation Rooms and Protective Environment Rooms.

This amendment is consistent with the nationally recognized standard ANSI/ASHRAE/ASHE Standard 170-2008, Ventilation of Health Care Facilities.

Section 506.2 Construction

See purpose and rationale for Section 601.3.

Section 601.3, 602.1, 602.3, 602.4, 602.5, 602.6, 603.0, 604.2, 604.5, 605.0 and Tables 6-1 through 6-10

The 2009 UMC refers to an outdated SMACNA duct construction standard (1995 version), and includes tables, and an Appendix extracted from this now outdated standard. SMACNA updated this standard in 2006, and it is now ANSI approved, entitled "SMACNA/ANSI 006-2006 HVAC Duct Construction Standards - Metal and Flexible." However, the updated standard was published after the deadline for submitting code proposals for the 2009 UMC, resulting in its omission. IAPMO is in the process of updating this reference, but will not complete this process prior to the adoption of the 2010 California Mechanical Code.

The outdated reference, out of date tables and Appendix create conflict between code enforcement agencies, contractors and design engineering firms. HVAC contractors and design firms are currently using the 2006 version of SMACNA in their system duct design. Moreover, the 1995 version *is no longer published or available*.

In addition, the 2009 UMC, Chapter 17, Standards Table 17-1 only lists the updated 2006 SMACNA standard and does not list the outdated 1995 version referenced in the text of the code. This creates both confusion and a potential for conflict. The data within the SMACNA standard has been tested and promulgated through a consensus based process and should only be used in whole. Continued use of outdated partial extracts in the UMC will create confusion and inconsistency.

Finally, the SMACNA/ANSI 006-2006 HVAC Duct Construction Standards - Metal and Flexible are already referenced in the other major industry HVAC documents, including:

- ASHRAE Standard 62.1
- ASHRAE Fundamentals Handbook
- National Fire Protection Association 90A, 90B, 96
- US Army Corp of Engineers
- International Mechanical Code
- International Energy Conservation Code

By adopting the 2006 SMACNA HVAC Duct Construction Standards into the 2010 California Mechanical Code, the State will ensure consistency with these other industry documents. In addition, much of the Federal stimulus money for energy efficiency requires the use of the most updated energy efficiency standards. The use of the outdated 1995 SMACNA HVAC Duct Construction Standards could potentially conflict with some of these requirements.

The proposal does the following:

- Moves the definition for the scope of this section that was contained in Appendix A (A6.201) to the body of the code in Section 601.0
- Amends Section 602.1 to replace the references to the outdated extracts of the 1995 SMACNA HVAC Duct Construction Standards with a reference to the 2006 SMACNA HVAC Duct Construction

Standards.

- Updates the Standards listed in Chapter 17. 2009 UMC incorrectly identifies the 2006 SMACNA HVAC Duct Construction Standards as a "2005" standard.
- Eliminates Tables 6.1 through 6.10, which contain outdated extracts from the 1995 SMACNA HVAC Duct Construction Standards.
- Eliminates Appendix A, which contains simplified and outdated extracts from the 1995 SMACNA HVAC Duct Construction Standards. (Except for Section 6.201 - Scope, which will be moved to the body of the code in Section 601.0).

By simply referencing the 2006 SMACNA HVAC Duct Construction Standards and not replacing the deleted tables and Appendix A, the Code will be simplified and will eliminate confusion and conflict. The new standards are more complex and involved than the 1995 standards. As a result, including selected or simplified extracts within the code may lead to inaccuracies and misapplication of the standard.

Section 1106.3.1 Refrigerant Service Ports

OSHPD in coordination with the Office of the State Fire Marshal, Department of Housing Community Development and other state agencies, is proposing to add this new amendment to the California Mechanical Code. The existing model code does not address the issue of accessibility to potentially dangerous chemical Chlorofluorocarbons (CFCs/Freon) by untrained and unlicensed individuals.

Because Freon is easily accessible, "huffing", which refers to the inhalation of Freon and other chemicals, has been on the rise over the past few years not only among pre-teens and teenagers but among adults as well.

The National Institute on Drug Abuse reports that one in five American teens have used Inhalants to get high. According to Stephen J. Pasierb, President and CEO of The Partnership for Drug-Free America, 22% of 6th and 8th graders admitted abusing inhalants and only 3% of parents think their child has ever abused inhalants. An analysis of 144 Texas death certificates by the Texas Commission on Alcohol and Drug Abuse involving misuse of inhalants found that the most frequently mentioned inhalant (35%) was Freon (51 deaths). Of the Freon deaths, 42 percent were students or youth with a mean age of 16.4 years. 55% of deaths linked to inhalant abuse are caused by "Sudden Sniffing Death Syndrome." SSDS can occur on the first use or any use.

This amendment will have a positive impact on the safety and health of our citizens, especially our youth. It will reduce the number of deaths associated with Inhalant abuse and the number of injuries associated with Freon accidents and leaks.

The actions described above are reasonably necessary to carry out the purpose for which it is proposed. The rationale for these actions is to establish minimum requirements for the prevention of fire and for the protection of life and property against fire and panic in occupancies that are addressed in the 2009 Uniform Mechanical Code and published as the 2010 California Mechanical Code pursuant to Health and Safety Code Section 13108, 13113, 13114, 13131.5, 13143, 17921, and 18949.2.

Section 1131.1

This OSHPD amendment is being repealed because the requirement has been added to Section 1131.0 of the 2009 Uniform Mechanical Code.

Table 11-1 Refrigerant Groups, Properties and Allowable Quantities

Table 11-1, Footnote No. 13 is being repealed because OSHPD is adopting model code as appropriate requirements.

Table 11-2 Permissible Refrigerant Systems

The amendments to this table add Occupancy I- 2.1 to coordinate with occupancy groups and divisions in Title 24, Part 2, California Building Code.

Chapter 17, Standards

UMC Standards 2-2, 6-2 and 6-5

SMACNA/ANSI 006–2006 referenced Standard

See purpose and rationale for Section 601.3.

Appendix A – Uniform Mechanical Code Standard No. 2-2, Standard for Galvanized Sheet Metals; Uniform Mechanical Code Standard No. 6-2, Standard for Metal Ducts; and Uniform Mechanical Code Standard No. 6-5, Standard for Installation of Factory Made Air Ducts

OSHPD is proposing to not adopt these standards. See purpose and rationale for Section 601.3.

TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:

There are no documents to identify.

CONSIDERATION OF REASONABLE ALTERNATIVES

No reasonable alternatives exist.

REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

No adverse impact on small business.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS

No adverse impact on business.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

Not applicable.