



CITY OF SACRAMENTO

36

DIVISION OF BUILDING INSPECTIONS
927-10TH STREET
ROOM 100
SACRAMENTO, CALIFORNIA 95814
449-5661

September 20, 1982

City Council
Sacramento, CA 95814

APPROVED
BY THE CITY COUNCIL

OCT 5 1982

OFFICE OF THE
CITY CLERK

CITY MANAGER'S OFFICE
RECEIVED
SEP 30 1982

MEMBERS IN SESSION:

SUBJECT: An Ordinance adopting the Uniform Plumbing Code, 1979 Edition, and repealing and reenacting Article IV of Chapter 9 of the Sacramento City Code pertaining to amendments to the Uniform Plumbing Code, and declaring this ordinance an emergency measure to take effect immediately;

An Ordinance adopting the Uniform Mechanical Code, 1979 Edition, and repealing and reenacting Article V of Chapter 9 of the Sacramento City Code pertaining to amendments to the Uniform Mechanical Code, and declaring this ordinance an emergency measure to take effect immediately.

SUMMARY

This item is presented to you at this time for revision and adoption of these codes. The facts constituting an emergency measure are the requirements of the State Housing Law mandating these codes be adopted within one year of their effective date and the need to comply with this requirement of State Law as soon as possible.

BACKGROUND

Two working committees were formed for the purpose of analyzing the plumbing and mechanical features of our existing ordinance with regard to both currency and harmony with the aforementioned documents.

The plumbing committee, chaired by Mr. Robert Painter of the Associated Plumbing and Mechanical Contractors of Sacramento, was composed of several plumbing industry representatives including Mr. Hans Sauernheimer of Modern Plumbing Co., Mr. Paul Bianchi, Jr. of B and A Electric and Plumbing, Mr. Ed Rio, P.E., of Sanford-Alessi & Assoc., Mr. Harry Rotz representing plumbers local union 447, Mr. Mike Dacy of the Rancho Cordova Fire District, Mr. John Voss of the County of Sacramento, and Mr. Ron Pecci of the City of Sacramento.

The mechanical committee, chaired by Mr. Bob Bos of the Sheet Metal and Air Conditioning Contractor's National Association Sacramento Valley Chapter was also composed of several industry members including Mr. Robert Clark of Park Mechanical, Inc., Mr. Walt Kamppila of Bos Sheet Metal Co., Mr. Dan Reichmuth of Air Specialists, Mr. Norm Greenslate of Sacramento SMACNA, Mr. John Voss of the County of Sacramento, and Mr. Ron Pecci of the City of Sacramento.

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The thrust of both committees was to align the existing features of both the city and county ordinances into a single coextensive document thereby creating code uniformity in both jurisdictions.

Our proposed amendments to the Mechanical code will be identical to those adopted by the County of Sacramento. The proposed Plumbing code amendments are also identical with the exception of two items. The first, Section 9.205, will require a number 12 copper tracer wire to be attached to non-metallic water service piping. Secondly, Section 9.207 will require a "Y" type clean out to be installed in the building sewer at the property line. Both of these requirements are currently in our code and will be maintained to comply with the mandates of the Division of Water and Sewers.

These amendments were approved by the Sacramento Construction Codes Advisory and Appeals Board on December 15, 1981.

Local changes or modification to the State Building Standards Codes are authorized where it is determined that such changes are reasonably necessary because of local climatic, geographical or topological conditions. Attached hereto for your consideration is a listing of the reasons that we believe certain modifications are reasonably necessary. These reasons have been embodied in the findings which comprise Section 4 of the proposed Ordinance. By adopting the Ordinance as proposed, you will be making an expressed finding that each such modification is reasonably necessary for the reasons we have described.

RECOMMENDATION

We feel there is strong local support for the adoption of these requirements because of the industry input as well as for the uniformity that will be achieved between the city and county building departments. It is recommended that the attached Ordinances be adopted.

Respectfully submitted,



D. T. Sullivan
Superintendent, Building Inspections Div.

RECOMMENDATION APPROVED

Walter J. Slipe
Walter J. Slipe
City Manager

Attachments

October 5, 1982

All Districts

TO: Members of Sacramento City Council

FROM: Building Inspections Division

The Building Inspections Division recommends the amendments to the Uniform Plumbing Code contained in the proposed Ordinance because they are reasonably necessary due to local climatic, geographical, or topographical conditions described below.

9.202 This amendment allows the city code to maintain their existing administrative organization. This does not affect the substantive requirements of the uniform code.

9.203 This amendment will incorporate the installation standards of the uniform code and does not modify the code.

9.204 This amendment will maintain an existing local requirement which is necessary to protect and extend the working life of buried ferrous gas and water piping systems.

Prior to enacting this ordinance in 1977, we were experiencing pipeline failure, in some cases, within three years of the initial installation. The catalyst for these failures was, and is, our corrosive soils.

Data gathered from P.G. & E., who routinely monitors soil resistivities, shows that our soils range from slightly corrosive to very corrosive throughout the city.

As a means of counteracting the destructive nature of our soils, it is necessary to reverse the electrochemical force within the soils and subsequently reduce the destructive process which destroys buried ferrous metals.

By requiring the means of protection specified in our ordinance we will extend the working life of these systems as well as reduce their operating and maintenance costs.

9.205 This amendment is included at the request of the Division of Water and Sewers and is necessary because, unlike some areas, the City of Sacramento provides water and sewer service field calls. This requirement provides a means for city field crews to easily locate water and sewer lines.

9.206 - See 9.204

9.207 - See 9.205

9.208 - See 9.204

9.221-9.224 Local jurisdictions have the option of adopting the appendices. This does not affect the substantive requirements of the uniform code.

9.225 Solar ordinance previously adopted by Council for inclusion in the plumbing code.

TO: Members of Sacramento City Council

FROM: Building Inspections Division

The Building Inspections Division recommends the amendments to the Uniform Mechanical Code contained in the proposed Ordinance because they are reasonably necessary due to local climatic, geographical, or topographical conditions described below.

9.252 This amendment allows the city code to maintain their existing administrative organization. This does not affect the substantive requirements of the uniform code.

9.253-9.254 Local jurisdictions have the option of adopting the appendices. This does not affect the substantive requirements of the uniform code.

9.255 The Uniform Mechanical Code requirement for condensate waste disposal is very general and lacks the detail necessary to provide proper guidelines for such installation. For example, the unamended code states, in part, "condensate from air cooling coils and the over-flow from evaporative coolers and similar water supplied equipment shall be collected and discharged to an approved plumbing fixture or approved disposal area." However, no description or definition of an approved plumbing fixture or an approved disposal area is provided. Our amendment will provide definitions for both.

This section also makes reference to "approved corrosion - resistant pipe" with no description of the specific pipe materials allowed. Our amendment will clarify this discrepancy and define the specific materials that are approved.

In addition, we will detail provisions for pipe sizing multiple unit installations which is not addressed in the unamended version.

9.256 Residential truss roof construction is becoming more widespread in our locality. These roof framing members are normally engineered to be installed on 24 inch centers. Such a placement precludes our requiring the 30 inch by 30 inch attic opening as specified in the code for attic mounted mechanical equipment.

Our amendment is consistent with the intent of the code in that we will still require an opening as large as the largest piece of equipment, however, we will accept a 22 inch by 34 inch opening as the minimum allowable size. Such a measure will allow the use of standard truss roof construction without additional engineering as well as provide adequate access to mechanical equipment for repairs or replacement.

9.257 This amendment is consistent with the intent of the code in that it provides an alternative to protecting the base of a floor furnace from the entrance of water.

The unamended code specifies that floor furnaces shall be sealed by the manufacturer to prevent the entrance of water. Our amendment would allow the installation of a water tight pan to be placed beneath the furnace as a means of preventing the entrance of water.

Amendments to the Mechanical Code
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9.258 - See 9.256

9.259 The unamended version of the code prohibits the use of sheet metal screws or other fastening means which extend into the duct. This is to prevent the accumulation of lint or other debris on the interior walls of the duct.

Our amendment is consistent with the intent of the code by specifying that smooth metal ducts be used. This would prevent the use of corrugated metal ducts which have shown to be incapable of allowing air entrained lint or debris to pass freely through the system without adhering to the duct walls.

9.260-9.262 Local jurisdictions have the option of adopting the appendices. This does not affect the substantive requirements of the uniform code.

ORDINANCE NO. 82-084

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF

AN ORDINANCE ADOPTING THE UNIFORM PLUMBING CODE, 1979 EDITION, AND REPEALING AND REENACTING ARTICLE IV OF CHAPTER 9 OF THE SACRAMENTO CITY CODE PERTAINING TO AMENDMENTS TO THE UNIFORM PLUMBING CODE, AND DECLARING THIS ORDINANCE AN EMERGENCY MEASURE TO TAKE EFFECT IMMEDIATELY.

APPROVED
BY THE CITY COUNCIL

OCT 5 1982

OFFICE OF THE
CITY CLERK

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1.

Section 9.06(b) of the Sacramento City Code is hereby amended to read as follows:

(b) The Uniform Plumbing Code, 1979 Edition, including appendices thereto, and the Installation Standards, as published by the International Association of Plumbing and Mechanical Officials. (Amended by Articles IV and XVI herein.)

SECTION 2.

Article IV of Chapter 9 of the Sacramento City Code is hereby repealed and reenacted to read as follows:

Article IV. Uniform Plumbing Code

Sec. 9.200 Amendments to the Uniform Plumbing Code, 1979 Edition.

The Uniform Plumbing Code 1979 Edition (UPC) is amended by adding thereto or deleting therefrom the following numbered sections.

Sec. 9.201 Title Lines.

For the purposes of this article, and notwithstanding the provisions of Section 1.6 of the Sacramento City Code, the title lines (or "catch words") to the following sections shall be deemed to be a part of such section.

Sec. 9.202 Deletion of Part 1 from the UPC.

Part 1 of the UPC is hereby deleted from the Code. See Article I of this chapter for administrative organization.

Sec. 9.203 Addition of Section 201(k) to the UPC.

Subsection (k) is added to Section 201 of the UPC as follows:

(k) All plumbing systems shall be installed so as to substantially comply with the IAPMO Installation Standards.

Sec. 9.204 Amendment of Section 315(e) of the UPC.

Section 315(e) of the UPC is amended to read as follows:

(e) Each system of buried ferrous piping used for either potable water or gas supply, shall have a protective coating of an approved type, machine applied and conforming to recognized standards. Field wrapping shall provide equivalent protection and is restricted to those short sections and fittings necessarily stripped for threading.

All buried ferrous piping shall be installed with cathodic protection. Private gas mains and laterals coming within the scope of the Federal Regulations for Pipeline Safety shall be designed and the installation supervised for compliance by a person qualified by experience and training in pipeline corrosion control methods. Supply piping for buildings shall be installed according to the same standards or by the use of Table 3-1 of this code.

When Table 3-1 is used, the piping system shall be installed according to the following requirements:

1. Galvanic anodes for cathodic protection of ferrous piping shall be buried not less than three (3) feet below grade, and below the bottom of the pipe to be protected. They shall be not less than four (4) feet horizontally from any buried metallic pipe. Before backfilling, the anode shall be flooded with a minimum of five (5) gallons of water.

Connecting of the anode to the pipe, when made less than six (6) inches above grade, shall be with a thermite weld. Connections six (6) inches or more above grade may be made by the use of an approved electrical service grounding clamp.

2. Water supply piping shall be isolated at the connection of the utility or private tap from the water main and at each building foundation line adjacent to the full way shut-off valve.

3. Gas supply piping shall be isolated adjacent to each building foundation line or at the appliance when located outside the building and from the serving gas suppliers service equipment.

4. Approved isolation fittings shall be located a minimum of six (6) inches above grade, except that at the water tap.

5. Any piping laid in the same trench with pipe requiring cathodic protection shall be separated laterally a minimum of twelve (12) inches, and piping installed diagonally above pipe requiring cathodic protection shall be separated vertically a minimum of six (6) inches. All separations shall be maintained with clean earth in accordance with UPC Section 317.

All piping regulated by this code and subject to undue corrosion, erosion or mechanical damage shall be protected in an approved manner.

TABLE 3-1
ANODE SELECTION CHART

Allowable length of Coated and Wrapped Buried Ferrous Gas or Water Pipe

Pipe Size \ Anode Size	1/2"	3/4"&1"	1 1/4"& 1 1/2"	2"	3"	4"
1 lb. anode	50'	-	-	-	-	-
3 lb. anode	150'	100'	50'	50'	-	-
9 lb. anode	500'	200'	200'	150'	100'	100'
17 lb. anode	-	500'	350'	300'	250'	150'
32 lb. anode	-	-	500'	500'	450'	350'

Sec. 9.205 Addition to Section 1004(a) of the UPC.

The following is added to Section 1004(a) of the UPC:

When non-metallic pipe is used for underground building supply, a number twelve (12) copper tracer wire shall be attached to the pipe by means of a suitable tape from the service (ball) valve to the full way valve at the building.

EXCEPTION: The copper tracer wire may be deleted on straight water service supplies when an accessible metal box and cover is installed, to grade, over the service (ball) valve.

Sec. 9.206 Amendment of Section 1008(c) of the UPC.

Section 1008(c) of the UPC is amended to read as follows:

(c) Copper water tubing installed within a building and in or under a concrete floor slab resting on the ground shall be installed without joints where possible. Where joints are permitted, they shall be brazed and fittings shall be wrought copper.

No ferrous water piping shall be installed in or under a concrete floor slab resting on the ground under any building or structure.

All buried ferrous yard piping shall be protectively coated and provided with cathodic protection as specified in Section 315(e).

Sec. 9.207 Addition to Section 1107(a) of the UPC.

The following is added to Section 1107(a) of the UPC:

Where the building sewer is attached to the public sewer, a "Y" type cleanout shall be installed at the point of service established by the City and extended to grade. All "Y" type cleanouts shall be the same size as the public sewer line they service with the minimum allowable size being four inches, except as hereinafter provided. Eight inch and larger city service lines may be served by an eight inch cleanout.

Sec. 9.208 Amendment of Section 1213(d) of the UPC.

Section 1213(d) of the UPC is amended to read as follows:

(d) Ferrous gas piping installed underground in exterior locations shall be protected from corrosion by approved coatings or wrapping materials and shall be provided with cathodic protection as specified in Section 315(e). All horizontal metallic piping shall have at least twelve (12) inches (.3m) of earth cover or other equivalent protection. Plastic gas piping shall have at least eighteen (18) inches (0.5m) of earth cover or other equivalent protection. Approved plastic to steel transition fittings shall be installed on each end of the plastic piping system.

Secs. 9.209 - 9.220. Reserved.

Sec. 9.221 Adoption of UPC Appendices.

Appendices A, B, C, D and G of the UPC are hereby adopted, together with amendments as hereafter indicated, as part of this code.

Sec. 9.222 Deletion from UPC Appendices.

Appendices E and I of the UPC are hereby deleted.

Sec. 9.223 Addition of Section D 3.0 to UPC.

Section D3.0 is hereby added to the UPC Appendix D to read as follows:

D3.0

Roof drains and roofs shall be designed to carry away rainfall at the rate of at least three (3) inches per hour.

Sec. 9.224 Amendment of UPC Appendix G.

UPC Appendix G is hereby amended to read as follows:

APPENDIX G
Swimming Pools

G 1 - No person, firm or corporation shall install any swimming pool or wading pool having a capacity of two thousand (2,000) gallons or more without first having obtained a building permit therefor from the director. Spas, permanent or portable regardless of water capacity, shall meet all the requirements of this code.

G 2 - All swimming pools or wading pools with a capacity of two thousand (2,000) gallons or more shall be provided with a circulating system equipped with an approved filter and separation tank.

EXCEPTION: The separation tank may be deleted when a cartridge type filter, approved by the director, is installed according to manufacturers specifications.

G 3 - When filing an application for a building permit to install a swimming or wading pool, the applicant shall submit for approval two sets of plans and specifications covering the construction and installation of the pool and its equipment. In addition, the plans shall contain the following information:

1. Name and address of the owner of the property;
2. A plot plan showing the relationship of the proposed pool to property lines and to all buildings located within ten (10) feet of any part of the pool including buildings located on adjacent property if within ten (10) feet of the proposed pool;
3. Plans shall indicate the location of the vacuum breaker and water supply, the location of the existing building sewer and water service, and, if gas water heater is to be installed, plans shall show the location of the gas supply line and all appliances on that line, size of gas line, distance of run from the gas meter to the farthest outlet, and the gas demand of each outlet.

No permit shall be issued by the director for a commercial pool until the plans have been approved by the County Health Department.

G 4 - All piping material used in the circulation and drainage system of a swimming pool or a wading pool shall be regulated by the applicable requirements of this code, except that when plastic PVC is used for circulating lines it need only have a soil burial depth of twelve (12) inches. All piping, except for penetrations through the walls of the pool, shall be properly isolated to prevent contact with any concrete. Risers to the pool equipment may be plastic PVC when completely sleeved with schedule 40 plastic.

If the director determines that exposed plastic PVC piping cannot be sleeved, such piping shall be painted with latex paint to provide protection from the sun. All circulation and water supply lines shall be filled with water and subjected to a minimum water pressure of thirty-five (35) pounds prior to and during inspection. Piping shall not leak when subjected to such test.

G 5 - No direct connection shall be made between any storm drain, sewer, drainage system, drywell, or subsoil irrigation line and any line connected to a swimming pool.

G 6 - Any discharge from the swimming pool or wading pool circulating system for the purpose of adjusting the water level in the pool shall be limited to the discharge from a hose connected to a single three-fourths (3/4) inch hose bibb, located on the discharge side of the separation tank, and which discharge from the hose shall drain to an improved street or alley only. An approved eighteen (18) inch sump, with a rim at least six (6) inches above the floor level of the adjacent ground, shall be installed to receive the discharge when there is no improved street or alley to receive the drainage. Such sump shall be connected to the storm sewer. When it is necessary to connect to a

sanitary sewer such connection must be approved by the Superintendent of the City Sewer Division.

G 7 - It shall be unlawful for any person, firm, or corporation to make any excavation in a public easement for the purpose of installing a pool or its related equipment, or to make any parallel excavation within two (2) feet of any public water or sewer main without first having obtained from the City Council a revocable encroachment permit.

- EXCEPTION:
1. A four (4) foot long parallel exposure of a public sewer or water main is permitted to be excavated for the purpose of preparing for the installation of a water or sewer tap.
 2. Circulating lines may be installed in a utility easement providing that any excavating for this purpose is a minimum of one (1) foot to the side and one (1) foot above any water or sewer main located in the pool owner's easement.

G 8 - No excavations shall be permitted within ten (10) feet of the land and toe of a river levee.

G 9 - No swimming pool or pool equipment, including water heaters, filter pumps and accessory structures, other than decks less than one foot above existing grade shall be located where prohibited by the Comprehensive Zoning Ordinance of the City of Sacramento.

Sec. 9.225 Requirements for active solar heating systems for outside swimming pools.

No person shall install or replace a fossil fuel heater for heating any swimming pool on or after February 1, 1981, unless such person shall install an active solar heating system for such swimming pool before or simultaneously with such installation or replacement.

(a) The term "fossil fuel heater" shall mean any heating device which consumes any petrochemical substance by combustion for the purpose of producing heat. "Petrochemical substance" shall include, but not be limited to, natural gas, propane, oil, gasoline, kerosene, diesel fuel or any other hydrocarbon distillate derived from petroleum.

(b) The term "swimming pool" shall mean and include any confined body of water exceeding two (2) feet in depth and greater than one hundred fifty (150) square feet in surface area, located above or below the finished grade of the site, and designed, used or intended to be used, for swimming, bathing, or therapeutic purposes. The term "swimming pool" as used in this section shall not include any swimming pool fully enclosed in a permanent structure or apply to a hot tub or spa which is not installed with a swimming pool.

(c) The term "active solar system" as applied in this section shall mean and include a device which circulates water through a heat exchange device ("collector") for the purpose of heating water for a swimming pool by use of radiated solar energy; and,

(i) which has a collector surface area equal to at least fifty per cent (50%) of the surface area of the swimming pool; and

(ii) which complies with the then current regulations of the California Energy Commission with respect to orientation of collectors for water heating systems for swimming pools (currently California Administrative Code, Title 20 Section 2603(b).

(d) Any active solar system for which the person installing the system obtains a CAL SEAL label pursuant to the CAL SEAL program shall be deemed to conform to the requirements for an active solar system stated above. Any active solar system which meets the Regulations for the California Solar Tax Credit established by the Energy Resources Conservation and Development Commission shall be deemed to conform to the requirements for an active solar system stated above.

(e) Any person desiring to install an active solar system which has a collector of less area than fifty per cent (50%) of the surface area of the swimming pool shall comply with Sections 9.577 and 9.578 of this chapter.

(f) Any owner of property where topographical conditions, development, or existing trees or buildings on or surrounding the site for the swimming pool or probable location of the collection system preclude effective use of an active solar heating system may apply for relief from this section. The director shall from time to time establish fees for processing such applications to reimburse the costs incurred in such processing.

(g) Notwithstanding anything in this section to the contrary, no active solar heating system shall be required for any swimming pool and spa combination where a fossil fuel heater and the swimming pool and spa combination are plumbed in a manner such that heated water from the fossil fuel heater can enter only the spa. In order to comply with the foregoing requirement, all such plumbing must be arranged such that it is not possible through the operation of any valve or other device in the plumbing to allow heated water from the fossil fuel heater to enter the swimming pool.

For purposes of the foregoing, the term "swimming pool and spa combination" means a swimming pool in conjunction with a spa which shares a common plumbing with such swimming pool.

(h) It shall be unlawful for any person to modify the plumbing of any pool and spa combination exempt from the requirement to install an active solar heating system under Section 9.233(g) such that, as a result of such modification, the swimming pool and spa combination are plumbed in a manner such that heated water from the fossil heater can enter the pool, unless, prior to or in conjunction with such modification, an active solar heating system which meets the requirements of this section is installed for such swimming pool and spa combination.

Secs. 9.226 - 9.249 Reserved.

SECTION 3.

This ordinance is hereby declared to be an emergency measure to take effect immediately. The facts constituting an emergency are the requirements of the

State Housing Law that the Uniform Plumbing Code, 1979 Edition, be adopted within one year of its effective date and the need to comply with this requirement of State law as soon as possible.

SECTION 4.

It is hereby found and determined that each of the modifications or changes to the requirements of the uniform plumbing code made by the provisions of this ordinance is reasonably necessary, because of local climatic, geographic or topographical conditions.

The City Council finds as follows:

(a) Section 9.202 of the City Code maintains the City's existing administrative organization because of the need for local flexibility and variation in the administration of the building department. This does not affect the substantive regulations of the uniform code.

(b) Section 9.203 substantially incorporates the IAPMO standards contained in the uniform code and so does not result in a modification.

(c) Section 9.204 maintains an existing requirement of the City Code and is necessary because of the corrosive soils in this area.

(d) Section 9.205 maintains an existing requirement of the City Code and is necessary because, unlike some areas, the City of Sacramento provides water service and makes field service calls. This requires a means to easily locate the pipes, which is assisted by the requirements of Section 9.205.

(e) Section 9.206 maintains an existing requirement of the City Code and is necessary because of the corrosive soils in this area.

(f) Section 9.207 maintains an existing requirement of the City Code and is necessary because, unlike some areas, the City of Sacramento provides sewer service and makes field service calls. This requires a means to easily locate the area where a problem has arisen and to easily clean out the service line, which is assisted by Section 9.207.

(g) Section 9.208 maintains an existing requirement of the City Code and is necessary because of the corrosive soils in this area.

(h) Sections 9.221- 9.224 exercise the local option allowed with respect to the appendices to the uniform code and do not affect the substantive requirements of the uniform code.

(i) Section 9.225 maintains an existing requirement of the City Code and is necessary and cost effective because of the wide range of temperatures in this area and the high number of days per year in which solar energy is available and feasible to use.

DATE ENACTED:
DATE EFFECTIVE:

ATTEST:

MAYOR

CITY CLERK

ORDINANCE NO. 82-085

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF

AN ORDINANCE ADOPTING THE UNIFORM MECHANICAL CODE, 1979 EDITION, AND REPEALING AND REENACTING ARTICLE V OF CHAPTER 9 OF THE SACRAMENTO CITY CODE PERTAINING TO AMENDMENTS TO THE UNIFORM MECHANICAL CODE, AND DECLARING THIS ORDINANCE AN EMERGENCY MEASURE TO TAKE EFFECT IMMEDIATELY

APPROVED
BY THE CITY COUNCIL

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

OCT 5 1982

SECTION 1.

OFFICE OF THE
CITY CLERK

Section 9.06(c) of the Sacramento City Code is hereby amended to read as follows:

(c) The Uniform Mechanical Code, 1979 Edition, including the appendices thereto, as published by the International Conference of Building Officials. (Amended by Article V herein.)

SECTION 2.

Article V of Chapter 9 of the Sacramento City Code is hereby repealed and reenacted to read as follows:

Article V. Uniform Mechanical Code

Sec. 9.250. Amendments to the Uniform Mechanical Code, 1979 Edition.

The Uniform Mechanical Code 1979 Edition (UMC) is amended by adding thereto or deleting therefrom the following numbered sections.

Sec. 9.251. Title Lines.

For the purpose of this article, and notwithstanding the provisions of Section 1.6 of the Sacramento City Code, the title lines (or "catchwords") to the following sections shall be deemed to be a part of such sections.

Sec. 9.252. Deletion of Chapter 2 from the UMC.

Chapters 2 and 3 are hereby deleted from the UMC. See Article I of this Chapter for administrative organization.

Sec. 9.253. Adoption of UMC Appendices.

Appendix A, Chapter 21 of Appendix B, and Appendix C of the UMC are hereby adopted, together with amendments thereto that may be hereinafter indicated, as part of this code.

Sec. 9.254. Deletion from UMC Appendices.

Chapter 22 of Appendix B of the UMC is hereby deleted.

Sec. 9.255. Indirect Waste Connections.

Section 510 of the UMC is amended to read as follows:

Sec. 510. Condensate from air cooling coils and the overflow from evaporative coolers and similar water supplied equipment shall be collected and discharged to an approved plumbing fixture or approved disposal area.

An approved plumbing fixture for the purpose of this section shall be:
(1) an approved trapped and vented receptor connected to a sanitary sewer;
or (2) downspouts may be used when they terminate in an approved disposal area.

An approved disposal area for the purpose of this section shall be: (1) a drywell with a rock fill, (2) a planting area large enough to accept the discharge wastes, (3) a storm drain system, or (4) a sanitary sewer system.

The drain shall have a slope of not less than 1/8 inch per foot and shall be of approved corrosion-resistant pipe not less in size than 3/4 inch for air cooling coils and not less than the drain outlet size for evaporative coolers or other equipment.

Condensate or waste water shall not drain over a public way, nor over any improved private walkway, driveway, or improved surface. A public way for the purpose of this section shall be as defined in the Uniform Building Code. The Building Official must make the final determination that no nuisance will be caused by the condensate.

The installation of condensate piping shall be as follows:

1. MATERIALS (pipe). Approved corrosion-resistant pipe for the purpose of this section shall be: ABS-DWV, cast iron, Durham Systems, hard drawn copper, PVC-DWV, Schedule 40 Type I 1120-1220 PVC plastic piping.

2. MATERIALS (Fittings). Short pattern 90 ells are prohibited. Use only recessed pattern fittings. Drainage pattern fittings are required for piping 1 1/4 inch and larger.

3. TRAPS. A trap shall be installed in the condensate drain line, at the evaporator unit, when required by the manufacturers installation instructions.

4. CLEANOUTS. The installation and location of cleanouts in condensate drain lines shall conform to the manufacturers installation instructions. In the absence of such specifications in the installation instructions, an accessible cleanout shall be required at the unit. Plugged tees, union connections or short clamped hose sections at the unit are all acceptable cleanouts.

Main condensate piping receiving condensate waste from more than one evaporator outlet shall be provided with an accessible cleanout at each change of direction.

5. HANGERS AND SUPPORTS. All condensate piping shall be supported so as to maintain a straight alignment, a uniform slope, and at intervals required by the Uniform Plumbing Code.

6. THERMAL EXPANSION. Allow for thermal expansion and movement in all plastic piping installations by the use of approved methods. Support, but do not rigidly restrain, piping at branches or changes of direction. Do not anchor rigidly in walls. Holes through framing members shall be adequately sized to allow free movement.

7. PROTECTION FROM DAMAGE. Plastic piping passing through wood studs or plates shall be protected from puncture by a minimum 1/16 inch thick steel plate. All plastic piping shall be protected from concrete "form" oil, direct sunlight, and mechanical damage.

8. PIPE SIZE. Pipe size shall be as shown in the following table.

NUMBER OF HORIZONTAL WASTE OUTLETS FROM EVAPORATOR(S)

	<u>PIPE SIZE</u>				
	<u>3/4"</u>	<u>1"</u>	<u>1 1/4"</u>	<u>1 1/2"</u>	<u>2"</u>
Copper, Plastic	1	2	6	12	32
Cast Iron, Galvanized Steel (Durham)			4	12	32

Note: Vertical piping from condensate pumps may be sized as the pump outlet. Horizontal piping to be sized from this table.

Unless roofs are adequately sloped to drain over roof edges or to roof drains, provisions shall be made to eliminate defrost water.

Sec. 9.256. Amendment of Section 708 of the UMC.

Section 708 of the UMC is amended to read as follows:

Sec. 708. A warm-air furnace installed in an attic or furred space less than five (5) feet in height at the furnace location shall be listed for installation in such area and for use on combustible flooring.

Clearances of a warm-air attic furnace from combustibles shall be as specified in Section 502.

An attic or furred space in which a warm air furnace is installed shall be accessible by an opening and passageway as large as the largest piece of the furnace and in no case less than 30 inches by 30 inches continuous from the opening to the furnace and its controls. In residential truss roof construction the furnace may be accessible by an opening as large as the largest piece of equipment but in no case less than 22 inches by 34 inches. The distance from the passageway access to furnace shall not exceed 20 feet measured along the center line of the passageway. Every passageway shall be

unobstructed and shall have continuous solid flooring not less than 24 inches wide from the entrance opening to the furnace.

A permanent electric outlet and lighting fixture controlled by a switch located at the required passageway opening shall be provided at or near the furnace.

Sec. 9.257. Amendment of Section 804(c) of the UMC.

Section 804(c) of the UMC is amended to read as follows:

(c) INSTALLATION. Floor furnaces shall be supported independently of the furnace floor grille.

Floor furnaces shall not be closer than six (6) inches to the ground.

Exception: Such clearance may be reduced to two (2) inches if either of the following conditions exist:

(i) The lower six (6) inch portion of such furnace is sealed by the manufacturer to prevent entrance of water; or

(ii) A 26 gauge galvanized metal or 16 ounce copper pan soldered water tight at all seams and coated inside and out with a waterproof emulsion is used to protect the floor furnace from flooding.

When it is necessary to excavate to install a floor furnace, the excavation shall extend 30 inches beyond the control side of the floor furnace and 12 inches beyond the remaining sides and the back.

Excavations required by this subsection shall slope outward from the perimeter of the base of the excavation to the natural grade under that portion of the building at an angle not exceeding 45 degrees from horizontal.

Floor furnaces shall not be installed on a concrete slab on grade.

Sec. 9.258. Amendment of Section 1202 of the UMC.

Section 1202 of the UMC is amended to read as follows:

Sec. 1202. Cooling coils installed as a portion of, or in connection with, any warm-air furnace shall be arranged to comply with the requirements of Section 705.

Direct refrigerating systems containing Group 2 refrigerants shall not serve any air-cooling or air-conditioning system used for human comfort.

When any cooling equipment, other than ducts and piping, is suspended from the under-floor construction, a minimum clearance of not less than 6 inches shall be provided between the base of the equipment and the ground.

Except for piping, ducts and similar equipment that does not require servicing or adjusting, an unobstructed access and passageway not less than 2 feet in width by 6 feet 6 inches in height shall be provided to every cooling unit.

EXCEPTION: The access opening to a cooling unit located in an attic space may be reduced to 30 inches in length and width, provided the unit can be replaced from this opening or any other opening into this space or area.

An unobstructed working space not less than 30 inches in depth and 6 feet 6 inches in height shall be provided along the entire firebox and control side of every cooling unit.

An unobstructed access space not less than 24 inches in width and 30 inches in height shall be provided to every air filter, fuel control valve and air-handling unit.

EXCEPTION: An access opening from this unobstructed access space, which opens directly to such equipment, may be reduced to 15 inches in the least dimension if the equipment can be serviced, repaired and replaced from this opening without removing any permanent construction.

An unobstructed access space not less than 24 inches in width and 18 inches in height shall be provided to every cooling unit vent collar, unless the vent collar is accessible from any access panel approved with the unit.

Access to equipment located in a machinery room shall comply with Section 1507.

In addition to the applicable provisions of this section, access to equipment located on a roof or on an exterior wall of a building shall be provided as required for furnaces in Section 710 of this code.

Where a fixed ladder serves equipment located in an attic space, it shall lead directly to the required access opening, and a suitable handhold shall be provided in the attic directly above the access ladder.

Where access is required to equipment located in an attic or furred space and the access is by means of a scuttle, the scuttle opening may be reduced to 30 inches in length and width, provided the equipment can be replaced from this opening. In residential truss roof construction the cooling system may be accessible by an opening as large as the largest piece of equipment but in no case less than 22 inches by 34 inches.

Every passageway serving equipment located in an attic or furred space shall have solid continuous flooring not less than 2 feet in width from the access opening to the required working space and platform in front of the equipment.

Where access is required to equipment located in an under-floor space, attic or furred space, there shall be installed a permanent electric light outlet and lighting fixture at, or near, the equipment. This light shall be controlled by a switch located at the required passageway opening.

EXCEPTION: This requirement shall not apply where the fixed lighting for the building will provide sufficient light for safe servicing of the equipment.

Where the cooling coil of air-conditioning unit is located above a living space, or where structural damage may result from condensate overflow, an additional watertight pan of corrosion-resistant metal shall be installed beneath the cooling coil or unit to catch overflow condensate due to a clogged condensate drain, or one pan with standing overflow and separate drain may be provided in lieu of the second drain pan. The additional pan or the standing overflow shall be provided with a drain pipe, minimum 3/4-inch nominal pipe size, discharging at a point which can be readily observed.

Sec. 9.259. Amendment to Section 1903 of the UMC.

Section 1903 of the UMC is amended to read as follows:

Sec. 1903. Where a clothes dryer is connected to a moisture exhaust duct, it shall be installed in accordance with manufacturer's instructions and recommendations.

A clothes dryer moisture exhaust duct shall not be connected into any vent connector, gas vent or chimney.

Smooth metal ducts shall be used for exhausting clothes dryers. Such ducts shall not be put together with sheet metal screws or other fastening means which extend into the duct.

Moisture exhaust ducts shall not terminate beneath the building or in the attic area.

Domestic clothes dryers shall be exhausted to the outside if in an area that is habitable or containing other fuel-burning appliances.

Sec. 9.260 Amendment of UMC Appendix B Section 2102.

Section 2102 of Appendix B of the UMC is amended to read as follows:

Sec. 2102 Scope.

The requirements of UMC Appendix B Chapter 21 shall apply to the construction, installation, operation, repair and alteration of all boilers and pressure vessels.

EXCEPTIONS: 1. Listed or approved pressure vessels (hot-water tanks) with a nominal water containing capacity of 120 gallons or less having a heat input of 200,000 Btu/h or less used for hot-water supply at pressure of 160 pounds per square inch or less and at temperatures of 200° F. or less.

2. Pressure vessels used for unheated water supply, including those containing air which serves only as a cushion and is compressed by the introduction of water and tanks connected to sprinkler systems.

3. Portable unfired pressure vessels and I.C.C. containers.

4. Containers for liquefied petroleum gases, bulk oxygen and medical gas, which are regulated by the Fire Code.

5. Unfired pressure vessels in Groups B, H, R and M Occupancies having a volume of 5 cubic feet or less and operated at pressures not exceeding 250 psi.

6. Pressure vessels used in refrigeration systems which are regulated by Chapter 15 of the UMC.

7. Pressure tanks used in conjunction with coaxial cables, telephone cables, power cables, and other similar humidity control systems.

8. Any boiler or pressure vessel subject to regular inspection by Federal Inspectors or licensed by Federal authorities.

9. Any steam boiler subject to regular inspections as required by the California State Division of Industrial Safety (Steam Boilers operating at pressures over fifteen (15) pounds per square inch and located in buildings where people are employed); however, this exception shall not apply to Sections 2115, 2117, 2118, 2119, 2120, 2121, and 2127 of the UMC.

Sec. 9.261. Amendment of Section 2108 of UMC Appendix B.

Section 2108 of the UMC Appendix B is amended to read as follows:

Sec. 2108. (a) Relief valves for hot water boilers shall be installed as required by the Uniform Plumbing Code for water heating devices.

(b) Relief valves for steam boilers shall discharge to an approved closed condensate tank.

Sec. 9.262. Deletions from UMC Appendix B.

Sections 2124 and 2125 of UMC Appendix B are deleted.

SECTION 3.

This ordinance is hereby declared an emergency measure to take effect immediately. The facts constituting the emergency are the requirement of the State Housing Law that the Uniform Mechanical Code, 1979 Edition, be adopted within one year of its effective date and the need to comply with this requirement of State law as soon as possible.

SECTION 4.

It is hereby found and determined that each of the modifications or changes to the requirements of the uniform mechanical code made by the provisions of this ordinance is reasonably necessary, because of local climatic, geographic or topographical conditions.

The City Council finds as follows:

(a) Section 9.252 of the City Code maintains the City's existing administrative organization because of the need for local flexibility and variation in the administration of the building department. This does not affect the substantive regulations of the uniform code.

(b) Section 9.253-9.254 exercise the local option allowed with respect to the appendices to the uniform code and do not affect the substantive requirements of the uniform code.

(c) Section 9.255 maintains, and editorially clarifies, an existing requirement of the City Code and is necessary because of the high temperatures experienced in this area, the resulting high number of air conditioning systems installed in this area, and the potential problems which could arise if the condensate and waste water from such systems were not properly disposed of.

(d) Section 9.256 adds a new requirement to the City Code and is necessary because of the widespread use of residential truss roof construction in this area.

(e) Section 9.257 maintains an existing requirement of the City Code and is necessary because of the high water table in this area.

(f) Section 9.258 adds a new requirement to the City Code and is necessary because of the widespread use of residential truss roof construction in this area.

(g) Section 9.259 adds a new requirement to the City Code and is necessary because of the widespread installation of dryer exhaust ducts in building walls and other concealed locations.

(h) Section 9.260-9.262 exercise the local option allowed with respect to the appendices to the uniform code and do not affect the substantive requirements of the uniform code.

DATE ENACTED:
DATE EFFECTIVE:

MAYOR

ATTEST:

CITY CLERK