Subject: RESIDENTIAL HEAT PRODUCING DEVICES FOR EXTERIOR USE

Reference: 2015 IFC, 2016 Denver Amendments, & DRMC Chapter 4

Approved: Manuel Almaguer
Division Chief, Fire Prevention Division

Number: 2015 IFC, DFC 6104, 308 NFPA 1
Effective Date: April 17, 2019

This policy is meant to provide basic information in any given occupancy, all other Fire Code requirements will be enforced, these will be addressed by the Fire Inspector during inspections. Questions can be addressed to the Fire Prevention Division office between 7 a.m. to 3 p.m. Monday thru Friday, at (720) 913-3474 or at DENFPB@DENVERGOV.ORG. Permits may be obtained via E-Permits – Accela Citizen Accela available at Denver Fire Department - Fire Safety Operational Permits.

I. SCOPE

A. This policy covers the use of barbeques, open flame devices and heat producing devices in the City and County of Denver, using propane (LPG), natural gas, or solid fuel in single family and Multifamily Residences.

B. Intent. The purpose of this code is to establish the minimum requirements, consistent with nationally recognized good practice, for providing a reasonable level of occupant and pedestrian fire and life-safety and property protection from the hazards of fire, explosion, production, use, and handling of dangerous and hazardous materials, substances, and devices, or dangerous conditions in new and existing buildings, structures, and premises. This policy is also used to provide safety to firefighters and emergency responders during emergency operations.

II. DEFINITIONS

A. Clean-burning fuels: Compressed natural gas, liquefied natural gas, liquefied petroleum gas or hydrogen; multi-fuels, such as diesel/compressed natural gas fumigations; fuels containing not less than eighty-five (85) percent ethanol or methanol; electricity or any other alternative fuel that the board of public health and environment of the city determines to be clean-burning.

B. DFC. Denver Fire Code Amendments

D. **Fireplace**: An opening made in a chimney and surrounded with brick, stone, metal or like material to hold a fire, and that has no specific method for recirculating heat or reducing emissions. These devices typically burn solid fuel and is not intended for any food preparation or cooking purposes.

E. **Fuel**: Any combustible substance or material or any combination of such.

F. **Open burning**: Fire or smoldering where any material is burned in the outdoor air or in an open container, receptacle, pit, vessel, chimenea, or other device designed or used for outdoor fires.

G. **Owner**: The person or entity having a legal or equitable interest in real property and its fixtures and appurtenances.

H. **Phase II wood stove**: A wood-burning device that has been certified by the United States Environmental Protection Agency or the Colorado Department of Public Health and Environment.

I. **Pellet Heater/Smoker**: A wood heater that meets the following criteria:
   1. The unit is safety listed for pellet fuel only
   2. The unit's operating and other instruction manual states that the use of cordwood is prohibited by federal law
   3. The unit must be manufactured and sold including a hopper and auger combination as integral parts.

K. **Premises**: Any building, structure, land, utility or portion thereof, including all appurtenances, and shall include yards, lots, courts and properties without buildings.

L. **R-2 Occupancies**: Residential Group R-2 occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including apartment houses, congregate living facilities (non-transient) with more than 16 occupants, boarding houses (non-transient), convents, dormitories, fraternities and sororities, monasteries, hotels (non-transient) vacation timeshare properties.

M. **Smolder**: To burn and produce smoke without flame.
N. **Solid-fuel-fired device**: A device designed for the combustion of solid fuels including wood-burning devices, fireplaces, solid-fuel-fired stoves, chimineas, firepits and combustion fuel furnaces that burn solid fuel. Solid-fuel-fired devices do not include natural gas-fired devices, commercial ovens or stoves used to prepare food for human consumption, pellet smokers, public utility facilities generating steam or electricity, or solid-fuel-fired barbecue devices. The Board of Public Health and Environment of the city, may adopt and the Manager of the Department of Public Health and Environment of the city may promulgate rules and regulations, as authorized in the Denver Revised Municipal Code subsection 4-6 a), to further define solid-fuel-fired devices including exclusions to the definition for fuels or classes of technology where the Board of Public Health and Environment of the city determines that the excluded fuel or technology is reliably cleaner burning than a Phase II wood stove or where the board determines that no reasonable alternative to the burning of solid fuel exists. In no case shall such definitions or exclusions be inconsistent with the requirements of chapter 24 of the Denver Revised Municipal Code.

O. **Solid waste**: Refuse consisting of paper, wood, yard wastes, food wastes, plastic, leather, rubber and such other combustibles and noncombustible glass, rock, etc., that may be generated from residential and commercial operations and from industrial sites.

### III. General Provisions

#### A. Multifamily Dwellings R-2 Occupancies

1. **DFC – Open Flame Devices**
   
   No gas-fired grills, charcoal grills or other similar devices used for cooking, heating, or any other purpose, shall be used or kindled on any balcony or under any overhanging portion or within 10 feet (3 m) of any structure.

   **Exceptions:**

   a. One and two-family dwellings.

   b. LP-gas burners having an LP-gas container with a water capacity not greater than 2.5 pounds [nominal 1-pound (0.454kg) LP-gas capacity]. Two extra 1-pound LP-gas containers may be stored on the balcony.

   c. Listed natural gas appliances shall be permitted on balconies.
CITY AND COUNTY OF DENVER          POLICY          DENVER FIRE DEPARTMENT

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When installed in accordance with the International Fuel Gas Code and supplied by the building’s natural gas system. Mushroom heaters are excluded from this exception since they may not be operated on any balcony, or roof.

d. Listed electric ranges, grills, pellet smokers or similar electrical apparatus shall be permitted. Devices should be placed as far away from the structure as the balcony will allow.

2. Denver Fire Code: Prohibition is added as follows:

   a. **Prohibition** - The installation of LP-gas containers and use of LP-gas is prohibited where a source of natural gas is within 300 feet of the nearest property line.

   b. **Location of LP-Gas Containers**

   c. **Maximum capacity within established limits is amended by adding Exceptions 1 and 2 as follows:**

      **Exceptions:**

      1) For dwellings constructed under the IRC, (one and two-family dwellings) a maximum of 40 pounds of propane [or two (2) 20-pound cylinders—one for use, and one spare bottle shall be permitted on the premises.] For quantity limits inside the actual dwelling unit, see NFPA 58, 8.3.5 which states: Storage of cylinders within a residential building, including the basement or any storage area in a common basement of a multiple-family building and attached or detached garages, shall be limited to cylinders each with a maximum water capacity of 2.7 pounds (1-pound cylinder) and shall not exceed 5.4 pounds (two one-pound cylinders) aggregate water capacity per each living space unit.

      2) For multi-family dwellings, one (1) 20-pound propane cylinder shall be allowed to be stored in each detached garage or detached storage area. However, they are never allowed to be stored on a balcony or underneath an overhang.
3. **State of Colorado**

Open burning is the burning of any material or substance, including rubbish, wastepaper, wood, vegetative material or any other flammable material, in the ambient air on any open premises, or on any public street, alley, or other land adjacent to such premises, or in a receptacle where emissions are released directly into the air without passing through a chimney or stack. Generally, anytime you light a fire outdoors, you are open burning.

Burning wood and vegetative products produces an array of harmful chemicals. Carbon monoxide, hydrocarbons, formaldehyde, dioxin and hundreds of additional chemicals are released when wood and other products are burned. Burning plastics, tires, chemically treated wood products and other man-made materials also produces this type of air pollution and releases other toxic chemicals into the air. Tiny pieces of material, commonly called particulate matter, are created in the burning process and can be inhaled into our lungs.

4. **Burn Barrels are illegal**
   a. Burn barrels are defined as incinerators using the definition given in the AQCC Common Provisions Regulation. Incinerators require Construction Permits (different from Open Burn Permits) and are subject to federal and state testing requirements and regulations. Incinerators are required by the EPA to have pollution control systems that reduce emissions.
   b. Burn barrels do not combust efficiently, resulting in limited oxygen and lower temperatures that create smoke, odors and a variety of toxic pollutants like dioxins. Dioxins are known carcinogens and can increase the risk of both short-term and long-term health problems. Burn barrels not only impact your own health, but the health of your neighbors and
the environment. The smoke created by burn barrels also creates a nuisance.

5. City and County of Denver

The City and County of Denver is working to maintain compliance with the Federal Government for air quality issues, and thus it has been determined that chimineas are illegal in the City and County of Denver. Administrative citations or a Summons can be issued to those residences violating the open burn policy.

B. One and Two-Family Dwellings:

1. Open burning. Chimineas, Firepits, and bonfires utilizing solid Fuel

   a. It shall be unlawful for any person to engage in or allow open burning within the city except when a written permit has been issued by the Denver Fire Department; all rules pertaining to solid fuel burning will remain in effect and provided, however, that permits will not be required for fires in devices designed and used exclusively for outdoor noncommercial cooking of food for human consumption. Chimineas are not designed for the cooking of food, as they are designed to be aesthetic in nature. Permits will not be required for smokeless or safety flares used for the combustion of gases or used to indicate some danger to the public. Listed natural gas appliances shall be permitted on patios when installed in accordance with the International Fuel Gas Code.

2. Solid Fuel Burning: Patio Fireplaces and Pellet Heaters

   a. High-pollution day prohibition. It shall be unlawful for any person to operate a solid-fuel-fired device during a high-pollution day unless the device has been approved by the department of Environmental Health and approved through Community Planning and Development via an installation permit and/or the Colorado Department of Public Health and Environment. The owner or lessee of a solid-fuel-fired device shall be liable for any unlawful operation of that device during a high-pollution day. Temporary approval may be given by the Building Department and
Environmental health if burning is necessary to provide heat for a building on an emergency or temporary basis, and a Denver Fire Department burn permit shall be required.

b. **Solid-fuel-fired devices.** No person shall sell, install or offer to install any solid-fuel-fired device for installation in Denver unless it is certified to meet the standards applicable for an EPA Phase II wood stove or pellet stove or masonry heater that has been approved by the Colorado Department of Public Health and Environment.

c. **Number limited for single-unit dwelling.** One (1) solid-fuel-fired device may be installed inside a single-unit dwelling (as defined in subsection 59-2(96) of the Revised Municipal Code) that is constructed or added to after the effective date of this section.

d. **Prohibited fuels.** It shall be unlawful to burn the following materials in a solid-fuel-fired device: treated, processed, or coated wood; coated or glossy paper and cardboard; yard waste; household, commercial or industrial waste; plastics or other synthetic materials; and other materials that create a nuisance as defined in subsection 4-2.

**IV. DRMC Section 4-9.-Civil or administrative penalties**

A. Any person who violates any provision of this chapter shall also be subject to a civil penalty of not more than two thousand dollars ($2,000.00) per violation per day

B. Any person who violates any order issued by the manager shall also be subject to a civil penalty of not more than two thousand dollars ($2,000.00) per violation per day

C. The Manager of the Department of Environmental Health shall determine the amount of penalties. In determining the propriety and amount of penalties, the following factors may be considered.

1. The potential harm to public health, or welfare, safety or the environment as a result of the violation
2. The history of previous violations
3. The number of continuing rule or code violations in the order
4. The person’s current compliance with this chapter and rules and regulations adopted and promulgated pursuant thereto.
5. Whether the violation occurred because of negligent or intentional conduct.
6. Economic benefit of noncompliance to the violator
7. The effect of the penalty on the person or entity’s ability to continue in business;
8. The demonstrated good faith of the person or entity charged in attempting to achieve rapid compliance after notification of a violation and other facts and circumstances relevant to the violation.

V. Methods of reporting

A. Residents may report violations using Denver 311. These referrals will be routed to Environmental Services. If the resident feels their life or property is in danger 911 may also notified.

B. Fire Crews responding to complaints of open burning may issue an OTC (Order To Comply) to residents conducting open burning or may at the Officer’s discretion choose to issue a verbal order to cease and desist. In both instances the officer needs to notify Environmental Services via e-mail to Eqcomments@denvergov.org. If an OTC was issued attach the Order to the e-mail.

C. Permitted events will have two permits. One from Environmental Services, and the second will be issued by the Fire Prevention Division through special events. Fire Prevention Division personnel will not issue a permit unless Environmental Services has issued their permit first.