



# North Conway Fire Department

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Melissa Carr  
Forest Glen Property Management  
P.O. Box 1313  
Glen, NH 03838

October 27, 2021

Re: Chimney flues with multiple woodstoves

Melissa,

On 10/26/2021 you contacted the North Conway Fire Department with concerns that all the woodstoves in buildings 2 & 3 did not meet fire code because chimney sweep had looked at the chimney's and told you they didn't meet fire code because there were three woodstoves per flue.

That same day I met with you at the property in question; known as North Face Resort Condos on Thompson road to look at the chimneys. This letter is to inform you what I found in regards to your concerns. I found 2 three story buildings with 12 units each and two chimney's per building. Each chimney has two 11 inch by 11 inch flue and each flue has three woodstoves attached to it. The code that was used to determine if the chimneys met code are listed below:

NFPA 211:9.8.2 2013 edition states unless listed for such connection, solid fuel-burning appliances shall not be connected to a chimney flue serving another appliance.

NFPA 211:5-8.2 1980 edition states unless listed for such connection, solid fuel-burning appliances shall not be connected to a chimney flue serving another appliance burning other fuels.

With that being side, all the woodstoves in units 9 through 32 shall not be used until they meet code or documentation that can show that the chimneys are listed for such connection. If you have any more question please feel free to give me a call. I look forward to hearing from you on this matter.

Thank You,

A handwritten signature in black ink that reads "Chad McCarthy". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Chad McCarthy, Assistant Chief  
North Conway Fire Department



STATE OF NEW HAMPSHIRE DEPARTMENT OF SAFETY  
John J. Barthelmes, Commissioner



**Division of Fire Safety**  
**OFFICE OF THE STATE FIRE MARSHAL**  
J. William Degnan, State Fire Marshal



Office: NH Incident Management Center, 110 Smokey Bear Blvd., Concord, NH  
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## INFORMATIONAL BULLETIN

BULLETIN #	TITLE			DATE ISSUED
2010-04	VENTING AND INTERCONNECTION OF HEATING APPL.			NOVEMBER 22, 2010
SUPERSEDES	RELEASED BY	APPROVED BY	SOURCE	SUPERSEDED BY
	JBC	RBF	MECH SAFETY; NFPA 31, 54, 211	

### Venting and Interconnection of Fuel Fired Appliances

This informational bulletin is designed to address questions and concerns from fire chiefs and building officials with respect to the venting of vaporized, solid fuel and gas fired heating appliances in the home. Given today's economic times, combined with a desire for cleaner renewable energy sources; many homeowners are adding or upgrading their heating equipment in their homes. The design and construction of high efficiency units can change conventional venting methods requiring the contractor, homeowner and public safety official to verify proper venting for not only the newly installed equipment, but the remaining equipment vented into a conventional chimney. Public officials are urged to work closely with contracting firms during the permit process to verify that the new appliance being installed not only meets the clearance to combustible surfaces, but has sufficient air for combustion and is properly vented.

#### Solid Fuel Heating Appliances

Solid fuel heating appliances are most commonly referred as the "wood stove". The solid fuel heating appliance family includes such organic materials as wood, wood pellet, corn, and coal stoves. For each of these appliances the NFPA 211 (Standard for Chimneys, Fireplaces, Vents, and Solid Fuel burning Appliances, 2003 Edition) is the prescriptive document.

NFPA 211 (Section 9.8) prohibits the interconnection of solid fuel-burning appliances into any chimney serving another appliance. Meaning; each chimney flue may only service one solid fuel-burning appliance. No combination of fuel-gas, oil-fired, or additional wood, wood pellet, coal or corn stoves may be vented into the same chimney flue as a solid fuel-burning appliance.

**Exception:** A solid fuel-burning appliance designed, constructed and listed to operate on a combination of fuels is permitted to be installed in a single chimney flue. The exception contends that the appliance is designed and constructed in such a manner that both fuels could not be used in conjunction with each other, and that safety controls have been integrated in such a manner as to prevent and/or shut down the appliance

before it reaches its over firing and venting capacity.

NFPA 211 (Section 13.3 & Chapter 14) mandates that in addition to verifying the chimney is suitable and large enough to properly vent the solid fuel-burning appliance, an inspection of the chimney must be conducted prior to any change in fuel usage.

## Oil Burning Appliances

The venting of oil burning appliances can be accomplished through the previously discussed NFPA 211 document, and the NFPA 31 (Standard for the Installation of Oil-Burning Equipment, 2001 Edition). The NFPA 31 document applies specifically to oil-burning appliances and offers additional clarification and details not available in NFPA 211.

Oil burning equipment is permitted to be vented in combination with other oil burning equipment, and with some restrictions fuel gas appliance. Oil burning appliances are not permitted to be vented in the same chimney flue as solid fuel-burning appliances such as wood stoves, coal or pellet stoves and/or heaters (NFPA 211 {Section 9.8.2}).

Both the NFPA 31 (Section 6.5) & 211(Section 9.8.3 &9.8.4) standards permit the combination of multiple oil burning appliances or fuel gas and oil appliances. Careful attention should given by the official to compel the properly licensed installer for their calculated confirmation that the chimney flue in question will be sized to handle both the maximum load of combined BTU's, as well as the minimum BTU load when the smallest appliance is operating by itself.

**Example:** A 130,000 BTU oil-fired furnace is installed in the basement near a 40,000 BTU gas-fired hot water heater. Both units intend to utilize the same chimney flue for venting the exhaust. The installer must produce the math and/or reference charts from NFPA 54 (The National Fuel Gas Code) to verify that the chimney flue will be large enough to properly vent the exhaust gasses when both units are operating simultaneously, yet small enough to provide sufficient draft when only the hot water heater operates in the summer months.

Although both the oil-fired and gas-fired appliances are permitted to be joined an approved or listed vent connector; both NFPA 211 and NFPA 31 require that the chimney have sufficient draft and that both units are equipped with primary safety controls and are located in the same room. In most cases where a combination of oil-fired equipment and gas-fired equipment is vented into the same chimney flue; two separate openings into the chimney flue are recommended. When two or more openings to the chimney flue are used; they must be at different levels and the smaller vent pipe shall be at the higher level. Officials should verify that proper clearances to combustible materials have been met.



**REMINDER:** Although two openings are permitted into a single chimney flue; NO combination of solid fuel-fired appliances are permitted to be vented into an oil-fired or gas-fired flue.

## Fuel Gas Fired Appliances

Propane and Natural Fuel Gas-fired appliance are vented through the NFPA 211 document and the NFPA 54 (National Fuel Gas Code, 2002 Edition). Both documents discuss the need for restrictive measures when a clay lined chimney is converted solely for gas-fired equipment use. Because gas-fired equipment has lower exhaust gas temperatures, many clay lined chimneys are not suitable for exhausting gas-fired equipment. In order to bring these chimney flues into compliance an insulated liner material is often needed. When these chimney flues have been converted or are specifically constructed for gas-fired equipment use only, a label in compliance with NFPA 211 (Section 10.5) must be installed at the breeching warning of the limitations and conversion for fuel gas-fired equipment only.

Sample Label in accordance with NFPA 211 (Section 10.5); This [type of chimney venting material] is for [type of appliance or category of appliance in accordance with NFPA 54 3.3.6.11] appliances that burn [type of fuel (natural gas or propane)] fuel ONLY. Do NOT Connect Other Types of Appliances.

When the combination of oil-fired appliances and gas-fired appliances are vented into the same chimney flue, the small diameter vent connector (usually serving the gas-fired appliance) must be vented into the chimney flue above the larger diameter vent connector. NO combination of gas-fired and solid fuel-fired appliances may ever be vented into the same chimney flue.

**REMINDER:** NFPA 54 (Chapters 12 & 13) Requires that Gas-fired appliances are not permitted to be vented in an exterior clay tile lined chimney in New England. The output exhaust gas temperatures of propane and/or natural gas-fired appliances are not hot enough to sustain sufficient draft in the cold winter temperatures. Exhaust gasses will commonly condense creating a hazardous carbon monoxide release into the dwelling. Gas-fired appliances vented into exterior clay lined chimney flues requires an additional approved (metal) lining material with insulation in order for the appliance to vent correctly.

**9.6 Location.** Where the connector used for a gas appliance having a draft hood or for Category I appliances is located in or passes through an attic, crawl space, or other cold area, that portion of the connector shall be one of the following:

- (1) Listed Type B or Type L vent material
- (2) Listed vent connector material having at least an equivalent insulating value

**9.7 Installation.**

**9.7.1** The following criteria shall apply to a connector to a masonry chimney:

- (1) It shall extend through the wall to the inner face or liner but not beyond.
- (2) It shall be firmly cemented to masonry.
- (3) If a thimble is used to facilitate removal of the chimney connector for cleaning, the thimble shall be permanently cemented in place with high-temperature cement.

**9.7.2** A chimney connector or vent connector shall not pass through any floor or ceiling or through a fire wall or fire partition.

**9.7.3** Connectors for listed gas appliances with draft hoods, other listed Category I gas appliances (Table 5.2.3.2, Column I), and oil appliances listed for Type L vents (Table 5.2.3.2, Column III) shall be permitted to pass through walls or partitions constructed of combustible material, provided one of the following conditions is met:

- (1) They are made of listed Type B or Type L vent material for gas appliances or of listed Type L vent material for oil appliances and are installed with not less than listed clearances to combustible material.
- (2) They are made of single-wall metal pipe and guarded by a ventilated metal thimble not less than 4 in. (102 mm) larger in diameter than the vent connector.

**9.7.4** Connectors for residential-type appliances (Table 5.2.2.1, Column I) shall be permitted to pass through walls or partitions constructed of combustible material if one of the following is true of the connector:

- (1) It is listed for wall pass-through.
- (2) It is routed through a device listed for wall pass-through and is installed in accordance with the conditions of the listing.

**9.7.5** The following shall apply to connectors for residential-type appliances (Table 5.2.2.1, Column I) with inside diameters less than or equal to 10 in. (254 mm):

- (1) They shall be permitted to pass through walls or partitions constructed of combustible material to a masonry chimney, provided the connector system selected or fabricated is installed in accordance with the conditions and clearances specified in Figure 9.7.5.
- (2) Any unexposed metal that is used as part of a wall pass-through system and is exposed to flue gases shall be constructed of stainless steel or other equivalent material that resists corrosion, softening, or cracking from flue gases at temperatures up to 1800°F (982°C).
- (3) Insulation material used as part of a wall pass-through system shall be of noncombustible material and shall have a thermal conductivity of 1.0 Btu-in./hr-ft<sup>2</sup>-°F (0.14 W/m-K).
- (4) Any material used to close up an opening for the connector shall be of noncombustible material.

- (5) A connector to a masonry chimney, except for System B in Figure 9.7.5, shall extend in one continuous piece through the wall pass-through system and the chimney wall to the inner face of the flue liner, but not beyond.

**9.7.6** A connector for a medium- or high-heat appliance (Table 5.2.2.1, Columns IV and V) shall not pass through walls or partitions constructed of combustible material.

**9.7.7** Connectors shall maintain a pitch or rise of at least ¼ in./ft (6.4 mm/305 mm) of horizontal length of pipe from the appliance to the chimney.

**9.7.8** Connectors shall be installed without sharp turns or other construction features that would create excessive resistance to the flow of flue gases.

**9.7.9\*** The following shall apply to a device, other than a damper, that obstructs the free flow of flue gas:

- (1) It shall not be installed in a connector, chimney, or vent unless listed for such use. (*For requirements regarding dampers, see Section 9.9.*)
- (2) Approved economizers, heat reclaimers, and recuperators shall be permitted in venting systems of equipment that are not required to be equipped with draft hoods in accordance with the fuel-burning appliance listing, provided performance is in accordance with Section 4.1.

**9.7.10** Connectors shall be supported and joints fastened using sheet metal screws, rivets, or other approved means.

**9.7.11** The entire length of a connector shall be accessible for inspection, cleaning, and replacement.

**9.7.12** A connector serving a gas or oil appliance shall not be connected to a chimney flue serving a factory-built fireplace unless specifically listed for such installation.

**9.7.13** The following shall apply to gas or oil appliances:

- (1) A connector serving a gas or oil appliance shall be permitted to be connected to a masonry fireplace flue if one of the following conditions is met:
  - (a) The fireplace opening is sealed.
  - (b) The fireplace is abandoned and the chimney flue that vents the fireplace is permanently sealed below the connection.
- (2) Listed gas or oil appliances shall be installed in accordance with the listing.

**9.7.14** The following shall apply to vent and chimney connectors:

- (1) They shall not be covered with insulation.
- (2) Listed insulated vent and chimney connectors shall be installed in accordance with the terms of their listing.

**9.8 Interconnection.**

**9.8.1** Connectors serving appliances operating under natural draft shall not be connected into any portion of a mechanical draft system operating under positive pressure.

**9.8.2** Unless listed for such connection, solid fuel-burning appliances shall not be connected to a chimney flue serving another appliance.

**9.8.3** Gas appliances and appliances burning liquid fuel shall be permitted to be connected to one chimney flue through separate openings or to be connected through a single opening, provided they are joined by a suitable fitting located as





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# Solid Fuel-

fuel-burning appliances, and the

installed in the same room or enclosure as the appliance in such a manner that no difference in pressure between the air in the vicinity of the regulator and the combustion air supply will be permitted.

## Chapter 6 Vents

### 6-1 Types and Uses. (See Table 1-2(b).)

6-1.1 Type B gas vents shall be used to vent only listed gas appliances with draft hoods and other Category I gas appliances listed for use with Type B gas vents. Type B gas vents shall not be used for venting:

- (a) Vented wall furnaces listed for use with Type BW gas vents only.
- (b) Incinerators.
- (c) Appliances that may be converted readily to the use of solid or liquid fuels.
- (d) Combination gas/oil-burning appliances.
- (e) Appliances listed for use with chimneys only.
- (f) Listed Category II, III, and IV gas appliances.

6-1.2 Type BW vents shall be used only with listed vented gas wall furnaces having a capacity not greater than that of the listed Type BW gas vent.

6-1.3 Special gas vents for listed Category II, III, and IV gas appliances shall be installed in accordance with the appliance and vent manufacturers' instructions.

6-1.4 Type L vents shall be used only with appliances listed as suitable for such use and gas appliances listed as suitable for use with Type B gas vents.

6-1.5 Single-wall metal pipe other than special gas vents used to vent Category II, III, and IV gas appliances shall conform to the following requirements:

6-1.5.1 Single-wall metal pipe shall not be used to vent incinerators.

Exception: For residential incinerators as provided for in 2-2.5.1 of NFPA 82, Standard on Incinerators, Waste and Litter Handling Systems and Equipment.

6-1.5.2 The pipe shall be of sheet copper with a thickness not less than 24 B & S gage (0.020 in. (0.533 mm)) or galvanized steel with a thickness not less than 20 gage (0.035 in. (0.914 mm)).

6-1.5.3 Single-wall metal pipe shall be used only for runs directly from the space in which the appliance is located through the roof or exterior wall to the outer air.

6-1.5.4 Single-wall metal pipe shall not originate in any unoccupied attic or concealed space and shall neither pass through any attic, inside wall, concealed space nor through any floor or ceiling.

5-8.1 Connections serving appliances operating under natural draft shall not be connected into any portion of a mechanical draft system operating under positive pressure.

5-8.2 Unless listed for such connection, solid fuel burning appliances shall not be connected to a chimney flue serving another appliance burning other fuels.

5-8.3 Gas utilization appliances and appliances burning liquid fuel may be connected to one chimney flue through separate openings or may be connected through a single opening if joined by a suitable fitting located as close as practical to the chimney provided:

(a) Sufficient draft is available for safe combustion of each appliance and for the removal of all products of combustion; and

(b) Appliances so connected are equipped with primary safety controls.

5-8.4 If two or more openings are provided into one chimney flue, they shall be at different levels and the smaller connector shall enter at the highest level consistent with available head room or clearance to combustible material.

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### 5-9 Dampers.

5-9.1 Manually operated dampers shall not be placed in chimneys, vents, or connectors of stoker fired, liquid, or gas burning appliances. Fixed baffles on the appliance side of draft hoods and draft regulators shall not be classified as dampers. Manually operated dampers may be installed in the chimney connector of hand-fired solid fuel burning appliances if such dampers do not obstruct more than 80 percent of the connector area.

5-9.2 Automatically operated dampers shall be listed and shall be installed by a qualified agency in accordance with the terms of the listing. The installation of dampers on gas appliances shall be in accordance with NFPA 54, National Fuel Gas Code.

5-10 Draft Hoods. For information concerning the use and installation of draft hoods, refer to NFPA 54, National Fuel Gas Code.

### 5-11 Draft Regulators.<sup>1</sup>

5-11.1 Gas appliances connected to chimneys, other than those required to be installed with draft hoods by NFPA 54, National Fuel Gas Code, may be installed with draft regulators if in accordance with the appliance manufacturer's instructions.

5-11.2 Solid fuel burning appliances may be installed with draft regulators to reduce draft intensity. Such regulators shall be installed and set in accordance with the instructions furnished with the appliance or the draft regulator.

<sup>1</sup>For information concerning the use and installation of draft regulators with oil-burning appliances, refer to NFPA 31, Standard for the Installation of Oil Burning Equipment.

1999 Edition

NFPA 211, Standard for Chimneys, Appliances, and Equipment. Buy the code.

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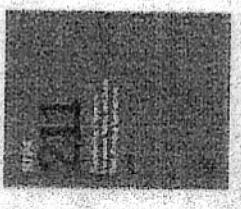
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## 211-36 CHIMNEYS, FIREPLACES AND VENTS

**5-7.8** Connectors shall maintain a pitch or rise of at least 1/4 in. (6.4 mm) to the foot (horizontal length of pipe) from the appliance to the chimney.

**5-7.9** Connectors shall be installed so as to avoid sharp turns or other construction features which would create excessive resistance to the flow of flue gases.

**5-7.10** A device, other than a damper, which will obstruct the free flow of flue gas shall not be installed in a connector, chimney or vent. For requirements regarding dampers, see Section 5-9.  
*Exception No. 1: This requirement shall not be construed to prohibit the use of devices specifically listed for installation in a connector, such as heat reclaimers, draft regulators, and safety controls.*  
*Exception No. 2: Approved economizers, heat reclaimers and recuperators in venting systems of equipment, not required to be equipped with draft hoods, provided performance is in accordance with Section 2-1.*

**5-7.11** Connectors shall be securely supported and joints fastened with sheet-metal screws, rivets, or other approved means.

**5-7.12** The entire length of a connector shall be readily accessible for inspection, cleaning, and replacement.  
*Exception: When listed materials are used and previous approval has been obtained from the authority having jurisdiction.*

**5-7.13** A connector serving another appliance shall not be connected to a chimney flue serving a fireplace.  
*Exception: When the fireplace opening is sealed or the chimney flue which vents the fireplace is permanently sealed below the connection.*

### 5-8 Interconnection.

**5-8.1** Connectors serving appliances operating under natural draft shall not be connected into any portion of a mechanical draft system operating under positive pressure.

**5-8.2** Unless listed for such connection, solid fuel burning appliances shall not be connected to a chimney flue serving another appliance burning other fuels.