



## Residential Mechanical Permit Submittal Requirements

**PERMIT REQUIRED:** A permit is required for the installation or replacement of oil or gas furnaces, gas or electric water heaters, boilers, gas inserts, gas logs, heatilators, woodstoves, inserts, pellet stoves, LPG (Propane) tanks, and related equipment. A permit is also required for gas piping.

**CODES:** International Residential Code (Current Edition)  
International Mechanical & International Fuel Gas Code (Current Edition)  
Uniform Plumbing Code (Current Edition)  
Washington State Energy Code (WSEC) (Current Edition)

**FEE:** Based on size and type of equipment or appliance

### **SUBMITTAL REQUIREMENTS FOR FUEL BURNING APPLIANCES:**

(For example; furnaces, hot water tanks, heatilators, etc.)

1. Permit Application [Form C](#) and specify the following:
  - a) Room where the unit will be placed, (i.e., garage, mechanical room, closet in kitchen, attic, crawlspace, unfinished basement, closet in family room, etc.)
  - b) BTU's of each appliance in the room (i.e. furnace 120,000 BTU, hot water heater 35,000 BTU etc.)
  - c) Description of the work, (i.e., gas furnace 90,000 BTU, LPG logs 25,000 BTU, etc.)
  - d) Indicate the length (in feet) of gas piping that will be installed and the types of fixtures to be connected (i.e., install 25 feet of gas piping for kitchen stove, furnace, hot water heater, etc.)
  - e) State how combustion air will be provided (i.e., direct vent, louvered door, open space, etc.)

NOTE: For code requirements on un-vented appliances contact the Building Division

### **SUBMITTAL REQUIREMENTS FOR SOLID FUEL BURNING APPLIANCES:**

(For example; wood stove, pellet stove, etc.)

1. Permit Application [Form C](#) describe the scope of work (i.e., install woodstove in den)
2. Submit a floor plan showing the location of the unit and the use of the room
3. Call out dimensions from unit to combustibles (walls, floors, etc.)
4. Specify floor/hearth material, thickness and extension of floor/hearth material on all sides of unit
5. Provide a detail of the fire wall construction or heat shield to be placed behind the unit
6. Provide an elevation view of the flue, detail the roof or wall penetration, and show adjacent doors and windows within 10 feet of the penetration
7. Submit a copy of the manufacturer's installation instructions
8. Provide unit documentation of emission standards for air quality compliance

## **ADDITIONAL INSTALLATION INFORMATION**

**All listed and tested appliances or units shall be installed per the manufacturer's specifications. In addition to those requirements the following shall also apply:**

### **ATTIC SPACE INSTALLATIONS**

- Access opening not less than 30 inches high by 22 inches wide.
- A level service space at least 30 inches by 30 inches located at the front or service side of the equipment.
- A permanent lighting fixture and a receptacle outlet shall be provided at or near the appliance location.
- See IRC M1701.1 for combustion air requirements.

### **CRAWL SPACE/UNDER FLOOR INSTALLATIONS**

- Access hatch not less than 30 inches high by 22 inches wide
- A permanent lighting fixture and receptacle
- Combustion air requirements for the appliances and underfloor ventilation combined.

### **GARAGE INSTALLATIONS**

- Appliances located in a garage shall be protected from impact by automobiles  
(Concrete or steel bollards or equivalent)
- Ductwork passing between garage into the dwelling shall be 26 gage minimum sheet steel.
- Double wall vent connectors for all gas appliances

### **PROHIBITED INSTALLATIONS FOR FUEL-FIRED APPLIANCES**

Fuel-fired appliances (furnaces, hot water heaters, etc.) shall not be located in, or obtain combustion air from sleeping rooms, bathrooms, toilet rooms, clothes or storage closets, or other confined spaces opening into a bathroom or bedroom.

#### **Exceptions:**

- 1) Direct vent appliances that obtain all combustion air directly from the outdoors,**
- 2) Solid fuel-fired appliances provided that the room is not a confined space and the building is not of unusually tight construction.**
- 3) Appliances installed in a dedicated enclosure in which all combustion air is taken directly from the outdoors in accordance with Section G2407.6. Access to such enclosure shall be through a weather-stripped solid door, with an approved self-closing device.**

Where not prohibited by other regulations, water heaters may be located under a stairway or landing provided that ½" gypsum board is provided on the underside ceilings and walls. IRC R311.2.2.

### **GAS EQUIPMENT SHUTOFF VALVES**

- An accessible approved shutoff valve shall be installed in the fuel gas piping outside of each appliance
- The shutoff must be within 6 feet of the appliance it serves
- Shutoff valves for vented decorative appliances and decorative vented fireplaces may be placed in a semi-remote area away from the appliance provided the shutoff is ready accessible, permanently identified and shall serve no other equipment.

### **EXTERIOR GROUND MOUNTED AIR CONDITIONING UNITS OR HEAT PUMPS**

- Air conditioning units greater than 36" in height must adhere to minimum required setbacks of the appropriate zoning district.
- Units served by other fuel means are subject to permit requirements. Exterior mechanical equipment is also subject to Design approval from the City Planning Division.

## **INSPECTIONS FOR GAS PIPING/MECHANICAL/HVAC**

- An inspection is required for all new or modified heating, cooling and ventilation systems; gas pressure test shall be a minimum of 3lbs held for 10 minutes.
- Gas piping and duct work shall be anchored in-place, hung, taped or strapped.
- Water heaters must have seismic straps, an expansion tank and the relief line must vent directly outside.
- Exhaust fans conveying moist air and passing through unheated space must be insulated for this inspection.
- Provide all manufacturer's installation instructions, including combustion air requirements to the inspector.

## **STATE ELECTRICAL INSPECTION    Performed by State Electrical Inspector**

Any alteration, repair or new installation of electrical wiring requires an electrical permit from the State Department of Labor & Industries, located at 729 100<sup>th</sup> Street SE, Everett, 425-290-1309 extension 1310.

NOTE: THE PURPOSE OF THIS HANDOUT IS TO ASSIST THE PUBLIC IN COMPLYING WITH DETAILED PERMIT SUBMITTAL REQUIREMENTS. IT IS NOT A COMPLETE LIST OF PERMIT OR CODE REQUIREMENTS AND SHOULD NOT BE USED AS A SUBSTITUTE FOR APPLICABLE LAWS AND REGULATIONS. IT IS THE RESPONSIBILITY OF THE OWNER/DESIGN PROFESSIONAL TO REVIEW THE SUBMITTAL FOR COMPLETENESS AND APPLICABILITY TO OTHER CODES. ONLY COMPLETE APPLICATIONS WILL BE ACCEPTED BY THE CITY FOR REVIEW.