

## Section 402:16 **OUTDOOR WOOD FURNACES** (adopted 8-10-10)

### **A. Intent**

Outdoor Wood Furnaces are a leading cause of citizen complaints and, if not operated properly, release many toxic chemicals, including dioxin, metals, benzene, mercury, lead, hydrogen cyanide and sulfur dioxide. These furnaces are designed for long burn times between loading and typically have chimney heights less than 10 feet. Restricted airflow, low operating temperatures, and large fuel loads frequently result in excessive smoke and toxic air pollutants laden with particulates, which can cause both acute and chronic health problems. Therefore, these Outdoor Wood Furnace regulations are adopted in order to protect the health, safety and welfare of West Traverse Township residents.

### **B. Definitions**

1. Outdoor Wood Furnace: Any equipment, device, appliance or apparatus, or any part thereof, which is installed, affixed or situated not within a building intended for habitation by humans or domestic animals and is primarily hand-loaded for the purpose of combustion of fuel to produce heat or energy used as a component of a heating system providing heat for any interior space or water source. An Outdoor Wood Furnace may also be referred to as an Outdoor Wood Boiler, Outdoor Wood-fired Hydronic Heater or Hydronic Heater.
2. Outdoor Wood-Pellet Furnace: An outdoor wood-pellet furnace that is specifically designed to burn wood pellet fuel, corn, or other biomass pellets with metered fuel and air feed and controlled combustion engineering, which burns only wood pellets, corn or other biomass pellets.
3. Chimney: Flue or flues that carries off exhaust from an Outdoor Wood Furnace firebox or burn chamber.
4. EPA HH Phase 1 Program – EPA HH (Hydronic Heater) Phase 1 Program administered by the United States Environmental Protection Agency.
5. EPA HH Phase 1 Program Qualified Model – An Outdoor Wood-fired Hydronic Heater that has been EPA HH Phase 1 Program qualified. The model has met the EPA HH Phase 1 emission level and is labeled accordingly.
6. EPA HH Phase 2 Program – EPA HH (Hydronic Heater) Phase 2 Program administered by the United States Environmental Protection Agency.
7. EPA HH Phase 2 Program Qualified Model – A Hydronic Heater that has been EPA HH Phase 2 Program qualified. The model has met the EPA HH Phase 2 emission level and is labeled accordingly.
8. Existing Outdoor Wood Furnace: An Outdoor Wood Furnace that was purchased and installed prior to the effective date of this ordinance.
9. New Outdoor Wood Furnace: An Outdoor Wood Furnace that is first installed, established or constructed after the effective date of this ordinance.

- 10. Natural Wood: Wood, which has not been painted, varnished or coated with a similar material, has not been pressure treated with preservatives and does not contain resins or glues as in plywood or other composite wood products.
- 11. Nuisance: Operation of an outdoor wood furnace that creates a foul or offensive odor, or that cause smoke emissions that are continuously or repeatedly offensive to occupants of surrounding property.

**C. Regulations for Outdoor Wood Furnaces**

- 1. No person shall, from the effective date of this ordinance, construct, install, establish, operate or maintain an Outdoor Wood Furnace other than in compliance with the applicable sections of this ordinance
- 2. A Zoning Permit shall be obtained from the Township prior to the construction, installation or operation of an Outdoor Wood Furnace.
- 3. Outdoor Wood Furnaces shall be constructed, established, installed, operated and maintained in conformance with the manufacturer’s instructions and the requirements of this ordinance. In the event of a conflict, the requirements of this ordinance shall apply unless the manufacturer’s instructions are stricter, in which case the manufacturer’s instructions shall apply.
- 4. A new Outdoor Wood Furnace that is EPA HH Phase 2 Program Qualified shall be allowed to be installed to replace a non-qualified outdoor wood furnace in the same location as long as the furnace is installed to meet the chimney height requirements in item 1.4.C. of this ordinance and proper fuel use requirements in items 1.4.A and B of this ordinance are met by the owner.
- 5. The owner of any new Outdoor Wood Furnace shall produce the manufacturer’s owner’s manual or installation instructions to the Township Zoning Administrator to review prior to installation.
- 6. All new Outdoor Wood Furnaces shall be laboratory tested and listed to appropriate safety standards such as UL, CAN/CSA, ANSI or other applicable safety standards.
- 7. If an existing Outdoor Wood Furnace is, through the course of a proper investigation by local authorities, creating a verifiable nuisance, as defined by local or state law, the following steps shall be taken by the owner:
  - a. Modifications made to the unit to eliminate the nuisance such as extending the chimney, or relocating the Outdoor Wood Furnace or both.
  - b. Cease and desist operating the unit until reasonable steps can be taken to ensure that the Outdoor Wood Furnace will not be a nuisance.

**D. Substantive Requirements**

Outdoor Wood Furnaces shall be constructed, established, installed, operated and maintained pursuant to the following conditions:

- 1. Fuel burned in any Outdoor Wood Furnace shall be only natural untreated wood, wood pellets, corn products, biomass pellets or other listed fuels specifically

permitted by the manufacturer's instructions such as fuel oil, natural gas or propane backup.

2. The following fuels are strictly prohibited in new and existing Outdoor Wood Furnaces:
  - a. Wood that has been painted, varnished or coated with similar material and/or has been pressure treated with preservatives and contains resins or glues as in plywood or other composite wood products.
  - b. Rubbish or garbage, including but not limited to food wastes, food packaging, food wraps
  - c. Any plastic materials including but not limited to nylon, PVC, ABS, polystyrene or urethane foam, and synthetic fabrics, plastic films and plastic containers.
  - d. Rubber including tires or other synthetic rubber-like products.
  - e. Newspaper, cardboard, or any paper with ink or dye products unless used as a starting fuel.
  - f. Any other items not specifically allowed by the manufacturer or this provision.
  - g. Lawn clippings, leaves, or plants.
  - h. Waste petroleum products.
  - i. Paint and paint thinners.
  - j. Manure and/or fecal matter of any kind
  - k. Asphalt Products
3. Setbacks and Chimney heights for any new Outdoor Wood Furnace model not EPA Hydronic Heater Program Qualified:
  - a. The Outdoor Wood Furnace shall be located at least fifty (50) feet from the property line.
  - b. The Outdoor Wood Furnace shall be located at least one-hundred (100) feet from any residence that is not served by the Outdoor Wood Furnace.
  - c. The Outdoor Wood Furnace shall be located on the property in compliance with manufacturer's recommendations and or testing and listing requirements for clearance to combustible materials.
  - d. The chimney of any new Outdoor Wood Furnace shall extend at least two (2) feet above the peak of any residence not served by the Outdoor Wood Furnace located within three-hundred (300) feet of such Outdoor Wood Furnace.
4. Setbacks and Chimney Heights for EPA OWHH Phase 1 Program qualified models:
  - a. The Outdoor Wood Furnace shall be located either at least forty (40) feet from the front property line and twenty-five (25) feet from the side and rear property lines, or meet accessory building setbacks, whichever is greater.
  - b. The Outdoor Wood Furnace shall be located at least one-hundred (100) feet from any residence that is not served by the Outdoor Wood Furnace.
  - c. The Outdoor Wood Furnace shall be located on the property in compliance with manufacturer's recommendations and or testing and listing requirements for clearance to combustible materials.
  - d. The chimney of any new Outdoor Wood Furnace shall extend at least two (2) feet above the peak of any residence not served by the Outdoor Wood Furnace located within three-hundred (300) feet of such Outdoor Wood Furnace.

5. Setbacks and Chimney Heights for EPA HH Phase 2 Program qualified models:
  - a. The Outdoor Wood Furnace shall be located on the property either in compliance with manufacturer's recommendations and or testing and listing requirements for clearance to combustible materials
  - b. The Outdoor Wood Furnace shall meet or exceed forty (40) feet from the front property line and meet accessory building setbacks for rear and side property lines.
  - c. If located within three-hundred (300) feet to any residence not served by the furnace, it is recommended that the chimney be at least two (2) feet higher than the peak of the residence served.
  - d. If located within one-hundred (100) feet to any residence not served by the furnace, the chimney shall be two (2) feet higher than the peak of the residence served or not served, whichever is higher.
6. Outdoor wood-pellet furnaces shall be installed per the manufacturers' recommendations.
7. Outdoor Wood Furnaces shall not be installed or used in the **R-2**, **S-1**, or **C-1** Districts.
8. Outdoor Wood Furnaces shall not be installed or used in the **I-1** District unless the furnace is an EPA Phase 2 Program Qualified Model and receives Planning Commission approval or conditional approval under Section 501:4, Standards for Special Land Uses and Structures, of the West Traverse Township Zoning Ordinance
9. Outdoor Wood Furnaces shall not be installed or used in the **R-1** or **R-1-A** Districts unless the furnace is an EPA Phase 1 or 2 Program Qualified Model.
10. If in compliance with the applicable sections of this ordinance, Outdoor Wood Furnaces may be installed, or used in the **A-1** or **A-1-A** Districts