Industrial ovens.

(A) Section 2101.1001 General

(1) 2101.1001.1 Scope. This rule shall apply to the installation and operation of industrial ovens and furnaces. Industrial ovens and furnaces shall comply with the applicable provisions of NFPA 86, the International Fuel Gas Code, the mechanical code as listed in rule 1301:7-7-471301:7-7-80 of the Administrative Code and this rule. The terms “ovens” and "furnaces" are used interchangeably in this rule.

(2) 2101.1001.2 Permits. Permits shall be required as set forth in rule 1301:7-7-01 of the Administrative Code.

(B) Section 2102.1002 Definitions

(1) 2102.1002.1 Definitions. The following words and terms shall, for the purposes of this rule and as used elsewhere in this code, have the meanings shown herein are defined in rule 1301:7-7-02 of the Administrative Code.

“Furnace class A.” An oven or furnace that has heat utilization equipment operating at approximately atmospheric pressure wherein there is a potential explosion or fire hazard that could be occasioned by the presence of flammable volatiles or combustible materials processed or heated in the furnace.

Note: Such flammable volatiles or combustible materials can, for instance, originate from the following:

1. Paints, powders, inks, and adhesives from finishing processes, such as dipped, coated, sprayed and impregnated materials.
2. The substrate material.
3. Wood, paper and plastic pallets, spacers or packaging materials.
4. Polymerization or other molecular rearrangements.

Potentially flammable materials, such as quench oil, water-borne finishes, cooling oil or cooking oils, that present a hazard are ventilated according to Class A standards.

“Furnace class B.” An oven or furnace that has heat utilization equipment operating at approximately atmospheric pressure wherein there are no flammable volatiles or combustible materials being heated.

“Furnace class C.” An oven or furnace that has a potential hazard due to a flammable or other special atmosphere being used for treatment of material in process. This type of furnace can use any type of heating system and includes a special atmosphere supply system. Also included in the Class C classification are integral quench furnaces and molten salt bath furnaces.

“Furnace class D.” An oven or furnace that operates at temperatures from above ambient to over 5,000°F (2760°C) and at pressures normally below atmospheric using any type of heating system. These furnaces can include the use of special processing atmospheres.

(C) Section 2103.1003 Location

(1) 2103.1003.1 Ventilation. Enclosed rooms or basements containing industrial ovens or furnaces shall be provided with combustion air in accordance with the mechanical code and the International Fuel Gas Code as listed in rule 1301:7-7-471301:7-7-80 of the Administrative Code, and with ventilation air in accordance with the mechanical code as listed in rule 1301:7-7-471301:7-7-80 of the Administrative Code.

(2) 2103.1003.2 Exposure. When locating ovens, oven heaters and related equipment, the possibility of fire resulting from overheating or from the escape of fuel gas or fuel oil and the possibility of damage to the building and injury to persons resulting from explosion shall be considered.

(3) 2103.1003.3 Ignition source. Industrial ovens and furnaces shall be located so as not to pose an ignition hazard to flammable vapors or mists or combustible dusts.

(4) 2103.1003.4 Temperatures. Roofs and floors of ovens shall be insulated and ventilated to prevent temperatures at combustible ceilings and floors from exceeding 160°F (71°C).

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(3) **2107.3** Training. Operating, maintenance and supervisory personnel shall be thoroughly instructed and trained in the operation of ovens or furnaces.

(4) **2107.4** Equipment maintenance. Equipment shall be maintained in accordance with the manufacturer's instructions.