
Davidson County Fire Marshal's Office
935 North Main Street Lexington, NC 27292 (336)242-2270

Industrial Ovens Operational & Construction Permits Application

Applicant Information:

Name: _____
First Middle Last

Position or Title: _____

Address: _____
Street Address

City State Zip

Phone: _____
Primary Number Other Number Fax Number

Email: _____

Business Information:

Owner/ Operator: _____
First Middle Last

Business Name: _____

Address: _____
Street Address

City State Zip

Phone: _____
Primary Number Other Number Fax Number

Email: _____

Manufacturer Information:

Manufacturing Company: _____

Furnace: _____
Model Number Serial Number Firing (Electrical or Gas)

Company Address: _____

Phone: _____
Primary Number

Email: _____

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Furnace location:

_____ New Construction

_____ Existing Building

Location within building _____

Other equipment, materials or storage located within the same area as the furnace _____

Furnace Class:

_____ 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.

_____ 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.

_____ 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.

_____ 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.

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Required information:

Plans submitted for the installation of and industrial oven shall include detailed information on the following items per NFPA 86.

Scale drawing of the floor plan that details location of equipment to be installed.

Oven Construction (including roof and floor)

Ventilation system (Mechanical permit may be required)

Fuel-Gas Piping & location of valves (Mechanical permit may be required)

Wiring Diagrams (Electrical Permit may be required)

Safety Features and control sequence of operation

Combustion equipment

Control equipment

Fire protection system information

Industrial ovens shall be installed in accordance with the NC Fire Prevention Code Chapter 30, and NFPA 86. It shall be the responsibility of the installation contractor to contact the Inspections Department and the Fire Marshal for required inspections.

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Application and Permit Information:

Construction Permit Fee: \$25.00 and Operational Permit Fee: \$25.00

Permit Fee of Twenty Five Dollars is due upon submission of application for each construction and operational permits and are non-refundable if the application is denied. Corrected application may be resubmitted for approval at no additional fee.

Detailed Construction Documents must accompany this application at the time of submission. Construction Documents shall contain scaled drawings and specifications with sufficient clarity and detail to indicate the nature and character of the work to be done. When required by the Fire Marshal's Office, construction documents shall be sealed by a registered design professional. All information, drawings, specifications, and accompanying data shall bear the name, address and signature of the person responsible for the design.

Verification or other technical information in regards to construction design or its components may be required by the Davidson County Fire Marshal's Office. Any information or verification required to be submitted from an outside or independent source will be the responsibility of the applicant.

A construction permit will be issued when all requirements of the North Carolina Fire Prevention Code, North Carolina Building Codes, NFPA, and the Davidson County Fire Marshal's Office have been met and all fees are paid.

An inspection or inspections to insure compliance with the North Carolina Fire Prevention Code, NFPA and the Davidson County Fire Marshal's Office will be required, of not only the permitted construction type but of the Facility or Facilities in which construction is done. Use of permitted construction will not be allowed until completion of inspection(s) and any violation(s) sited are corrected. An inspection must be requested a minimum of forty eight hours in advance unless otherwise stated by the Davidson County Fire Marshal's Office.

Any installation of an industrial oven shall comply with the NC Fire Prevention Code and NFPA 86. Fuel fired furnaces shall comply with the NC Fuel Gas Code. Ventilation requirements shall comply with the NC Mechanical Code. Electrical shall comply with the NEC NFPA 70.

Any variations or changes to construction documents after being submitted without notification of the Fire Marshal's Office will void this application and require a new application to submitted unless approved by the Davidson County Fire Marshal's Office. Any changes or modification in the permitted construction or it components without notification of the Fire Marshal's Office will void the issued permit and require a new application to be submitted.

Applicants Signature: _____ . Date: ____/____/____