

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
1202 Mail Service Center, Raleigh, NC 27699-1202
919-647-0000**

Outdoor Grills

Code: 2012 Mechanical Code
Section: 502.1, 507.2

Date: 8/22/2017

Question:

Is a means of exhaust required for an outdoorⁱ grill used in accordance with Senate Bill 24, Session Law 2017-2018ⁱⁱ?

Answer:

No. This Session Law is specifically referring to outdoor grills. Since there is no roof over the outdoor grill when it is in use, the smoke/heat/byproducts of combustion are able to move out of the space and not be trapped so as to be potentially irritating or hazardous to personnel in a building, [reference NCMC 502.1] and there is no building to be protected from grease accumulation that an exhaust system would be trying to accomplish.

Prior to Senate Bill 24, there was typically a requirement to have some type of insect screening and overhead protection for food being prepared separate from the main establishment, per NC DHHS Division of Public Health, Environmental Health Section Rules (NC DHHS, 2012)ⁱⁱⁱ. This screening and overhead protection would logically require a structure of some type that unfortunately, depending on how it was designed, also could trap the byproducts of combustion and perhaps grease, thereby necessitating their removal via some NC Building Code compliant method. However, due to the adoption of NC Senate Bill 24, the insect screening and overhead protection during cooking, is no longer required. Nonetheless, if a structure *is* placed over the cooking grill, the issues that existed before Senate Bill 24--byproducts of combustion, grease, etc.--need to be addressed. Please refer to follow-up questions.

Follow-up question #1:

If the owner desires to have a non-combustible weather shelter over the cooking appliance, is a means of exhaust required for an “outdoor grill”?

Answer:

It is not automatically exempt. If a noncombustible weather shelter were placed over this grill, then it is no longer an outdoor grill, and is not exempt from requirements of 502.1 and 507.2. It *does not necessarily* require a mechanical exhaust method, but there is no prescriptive code methods to verify compliance with 502.1 and/or 507.2. Any potential weather shelter/grill combination not meeting the prescriptive code can be presented as an alternate means and methods per NCMC 105.2. Pergolas^{iv} constructed of non-combustible materials are routinely accepted, as are very small footprint (not much larger than a single covered appliance), tall, open-sided, non-combustible weather structures. These structures may still represent a cleaning

issue, but that is something to be addresses by the owner and DHHS. Figure 1 is a grille that is clearly outdoors. Figure 2 has grilles with wooden pergolas (combustible). They do not meet the 10' clearance from a combustible structure, but they are an example of a structure that generally would not require supplemental exhaust. Figure 3 is an example of a grill that is covered with a roof, making it not outdoors by definition. The roof and its footprint may or may not trap the byproduct of combustion. The design professional should be prepared to demonstrate knowledge of the appliance, local wind conditions, and relative openness of the structure to justify exclusion of supplemental exhaust.

Follow-up question #2:

If the owner desires to have a non-combustible weather shelter over the outdoor cooking grill *attendant*, is a means of exhaust required for an outdoor grill?

Answer:

No. Care should be taken so that the shelter does not take such a shape so that it impairs the free flow of the smoke/heat/byproducts of combustion away from personnel, but there is no applicable code language to apply.

Follow-up question #3:

Item (5) of Senate Bill 24 requires the outdoor grill be located in an enclosed area and protected from environmental contamination when not in operation. What constitutes an enclosed area?

Answer:

The building code does not address the adequacy of the enclosed area or protection from environmental contamination contained in this law's language. The appropriate design professional and Health Department authorities should be contacted to obtain direction.

It may be possible that either the grill would be rolled into an existing structure, or perhaps a small mobile weather cover could be rolled/lifted over the grille, or maybe even the grill was constructed such that its factory-installed covering is adequate.

However, please note, that if the outdoor grill is using LP or butane fuels, there are limits where it can be stored or used per NFPA 58^v. Many outdoor grills have 20 lb propane cylinders, and that would exceed the amount allowed for use in a building. Determination as to what is "use" and "storage" is contained in NFPA 58, 2017 edition, and enforced by the NC Department of Agriculture, Standards Division, LP-Gas Section^{vi}.

Follow-up Question #4

Are there hot coal disposal guidance sections in any NC Building Code?

Answer:

Yes, there is a brief section for this topic. Any solid-fuel grill should have care taken to assure the coals are disposed of properly before storage. Reference NC Fire Prevention Code^{vii} 305.1 and 305.2.

Follow-up Question #5

Are there any code-related questions concerning the fuel piping or appliance listing?

Answer:

There numerous variations of what the appliance could be: pulled on a trailer, hand-portable, permanently mounted, solid-fuel, propane, natural gas, etc. so all conceivable appliances and locations are difficult to address, but code officials are generally familiar with outdoor installations of permanently-installed cooking equipment. Follow manufacturer's installation instructions, use the NC Fuel Gas code for any fuel gas piping requirements, and code guidance for permanently installed cooking equipment is covered in NCMC Section 917 or NCFGC 623.

In many cases, the building owner may intend to use grilles that are not permanent or pulled on trailers. There is no intent by this interpretation to limit those, but the building code official would not be the party responsible for inspecting said grille for the requirements of DHHS.

Figure 1: Outdoor grill



Figure 2: Pergolas, combustible structures



Figure 3: Grille with Roof



ⁱ From Merriam-Webster on-line Dictionary

Outdoor: 1: of or relating to the outdoors 2a: performed outdoors •outdoor sports b: outdoorsy •an outdoor couple
3: **not enclosed : having no roof • an outdoor restaurant**
(Merriam-Webster, 2017)

**ii GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2017 SESSION LAW 2017-18
SENATE BILL 24**

S24-v-5

AN ACT ALLOWING FOOD ESTABLISHMENTS TO USE OUTDOOR GRILLS FOR FOOD PREPARATION.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 130A-248 is amended by adding a new subsection to read:

"(c2) Notwithstanding any provision of this Part, a food establishment may use an outdoor grill to prepare food for customers for sample or sale if all of the following criteria are met:

(1) The outdoor grill is located on the premises of the food establishment and is continuously supervised by a food employee when the grill is in use.

(2) The outdoor grill has a cooking surface made of stainless steel or cast iron, meets sanitation requirements for equipment in a food establishment, and is stationed on a concrete or asphalt foundation.

(3) The outdoor grill is not operated within 10 feet of combustible construction.

(4) All open food and utensils are provided with overhead protection or otherwise equipped with individual covers, such as domes, chafing lids, or cookers with hinged lids.

(5) The outdoor grill is located in an enclosed area and protected from environmental contamination when not in operation.

(6) The outdoor grill and concrete or asphalt foundation are cleaned daily on any day that the grill is in operation.

(7) Raw meat, poultry, and fish are prepared in a pre-portioned or ready-to-cook form inside the food establishment and may only be handled indirectly with utensils when using the outdoor grill. Food prepared on the outdoor grill is processed inside the food establishment."

<http://ncleg.net/Sessions/2017/Bills/Senate/PDF/S24v5.pdf>

iii **All Environmental Health Rules can be accessed at the following website**

<http://ehs.ncpublichealth.com/rules.htm>

RULES GOVERNING THE FOOD PROTECTION AND SANITATION OF FOOD ESTABLISHMENTS, 15A NCAC 18A .2600 NC DEPARTMENT OF HEALTH AND HUMAN SERVICES DIVISION OF PUBLIC HEALTH ENVIRONMENTAL HEALTH SECTION

15A NCAC 18A .2669 TEMPORARY FOOD ESTABLISHMENT PHYSICAL REQUIREMENTS

(a) A temporary food establishment shall be located in an area kept in a clean and sanitary condition. The arrangement of temporary food establishments shall restrict public access to all areas of the food establishment except dining areas.

(b) For outdoor cooking, overhead protection shall be provided such that all food, utensils, and equipment are protected. When bulk foods such as roasts, shoulders, and briskets are cooked, cooking equipment with attached lids, such as smokers, roasters, and other cooking devices, provide sufficient cover for the food being cooked. Food in individual servings such as hot dogs, hamburgers, and meat kabobs shall have additional overhead cover.

(c) Effective measures such as fans, screens, walls, or a combination thereof, shall be provided to keep dust, insects, rodents, animals, and other sources of potential contamination out of the food establishment and shall comply with Paragraph 6-501.115(B) of the Food Code as amended by Rule .2656 of this Section regarding live animals.

iv **Definition of *pergola*** (Merriam-Webster, 2017)

1. **2** : a structure usually consisting of parallel colonnades supporting an open roof of girders and cross rafters

v NFPA 58 2014, Section 6.20.9.4. Enforcement/interpretation of the NFPA requirements is by the NC Department of Agriculture, Propane Fuels Division. Section 8.3 Storage within buildings. In most instances, 20-lb cylinders are cannot be stored in restaurant buildings. See NFPA 58 for details.

vi <http://www.ncagr.gov/standard/LP/>

vii **308.1.4 Open-flame cooking devices.** Charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family *dwelling*s.
2. Where buildings, balconies and decks are protected by an *automatic sprinkler system*.
3. LP-gas cooking devices having LP-gas container with a water capacity not greater than 2½ pounds [nominal 1 pound (0.454 kg) LP-gas capacity].