

The Great Debate! *Pizza Ovens*

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Recently, in the BOAF Discussion Group, the topic of pizza ovens and what type of hood would be required was tossed around. Depending on where you go in the State of Florida, or even around the United States, there doesn't appear to be a consensus of opinion.

The matter is only more complicated since many pizza restaurants are now serving more than just pizzas. Now they are making hot wings, desserts, hot sandwiches, and even some other pasta type dishes. I really like the Cinnasticks from Dominos or the pasta dishes from Pizza Hut, and Hungry Howies offers some great hot subs. But where do we draw the line for requiring a Type I or Type II Hood over the cooking appliances?

Let's start by evaluating the requirements of the Florida Mechanical Code (FMC). Section 507.2 tells us where a hood is required. In short, wherever a commercial cooking appliance is installed, a Type I or Type II hood shall be provided. There are always exceptions and this section has an extensive list of those exceptions. However, a Pizza Oven is not one of those exceptions. So now we've at least identified a hood is required, but which one?

Type I hoods are required (FMC Section 507.2.1) where cooking appliances produce grease or smoke. Examples of this are given as griddles, fryers, broilers, ovens and ranges. Type II hoods (FMC Section 507.2.2) are required where cooking or dishwashing appliances produce heat, steam, or combustion by-products but do not create grease or smoke. Examples are

steamers, kettles, dishwashing machines or pasta cookers. But where do pizza ovens fit into these definitions?

There is more than one type of cooking appliance used for cooking pizzas. The most common, used in high production restaurants, is the open conveyer-type oven. These units are open on either end, and may include an open able window door in the middle for mid-run access, and include the use of a wire grid conveyer to move the pizzas through the appliance.

The other common type of appliance is the brick oven or deck-style oven. These appliances are typically enclosed type units, having a manual operating door. During normal cooking operations the door is closed except for putting in or taking out the pizzas.

There are two primary resources for code enforcement relating to hoods, the Florida Mechanical Code and the Florida Fire Prevention Code. A major difference between the FMC and NFPA 96 deals with the term "Grease-laden Vapors". The FMC does not refer to "grease-laden vapors" but refers only to the production of grease while cooking. The Florida Fire

Prevention Code (via NFPA 96) requires a Type I hood be installed where cooking creates smoke or grease laden vapors. So, what's the definition of grease-laden vapors? NFPA 96 (2004) defines grease as "Rendered animal fat, vegetable shortening, and other such oily matter used for the purpose of and resulting from cooking and/or preparing foods." Additional

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explanatory information from NFPA 96 adds, "grease might be liberated and entrained with exhaust air or might be visible as a liquid or a solid." I'm not sure about your pizzas, but every pizza I've eaten was greasy.

NFPA 96 Section 4.1.1.1 provides an exception that appliances listed to UL 197 (or equivalent standard) are exempt from NFPA 96, and thus may not be subject to the FMC requirements for Type I hoods. UL 197 is limited to electric cooking equipment less than 600 volts, and not applicable to any gas fired units. Most pizza ovens are gas fired. However, UL 197 does provide some interesting information. The measurement used for certification to this standard is five milligrams per cubic meter (5mg/m³) measured at 500 CFM. This measurement is derived from the U.S. Environmental Protection Agency (EPA) Test Method 202, Determination of Condensable Particulate Emissions From Stationary Sources. Now we have a quasi definition of what constitutes "grease-laden vapors".

So, what is the final ruling? Well, it's still up to the appropriate AHJ. I would suggest Building Officials and Fire Officials, for specific AHJ's, meet to set forth a written policy on how pizza ovens will be addressed. If NFPA 96 is followed,

then a Type I hood would be required unless a pizza oven is listed to UL 197, or can provide testing to reflect emissions less than that specified by EPA Test Method 202. It really would not matter the type of oven used under the hood. Even if suppression nozzles cannot be installed within the oven (specifically on deck-style), the hood canopy and duct can be protected from flare-up and fire conditions.

Some AHJ's have taken the position no pizza oven creates enough grease to warrant a Type I hood, regardless of the type of oven used, and therefore require only a Type II hood be installed above the oven. Others have determined conveyer type ovens require a Type I hood with suppression, while Deck-style ovens require only a Type II hood without suppression. When speaking to a representative with the National Fire Protection Association on this topic, I learned there is no consistency on their end either. The committee that oversees the NFPA 96 rule making has proposed language to specifically exempt pizza ovens from the NFPA 96 requirements. However, in the past two code cycles the language was not approved and continues to be a major debate in the NFPA world... so we're not alone on this issue.

Is this the end of the story? Of course not!

Ken is a member of the Big Bend Chapter of BOAF and is also President of the Big Bend Chapter of FAPGAM

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