

Technical Memo

To: Portland Fire Department
Attn: Lt. Ben Wallace Jr.

From: Colby Co. Engineering

Date: 7/31/2013

Re: One City Center - Tic Taco Kitchen Exhaust Hood Existing system

Tic Taco restaurant is adding a kitchen exhaust hood to an existing kitchen exhaust system at One City Center in Portland, ME. The existing system was installed circa 1986 however has not been running for several years. The new kitchen hood will be the only hood served by this system and airflow and velocity has been verified as adequate (min 500 ft/min). Mechanical installation drawings were provided for a construction permit. The purpose of this memo is to describe the existing system and the deviations that were found from the current NFPA 96 – 2008 code for Ventilation Control and Fire Protection of Commercial Cooking Operations. These deviations require determination from the authority having jurisdiction as to whether or not they present an unacceptable degree of risk and the code sections below should be retroactively applied per section 1.4.2.

Item 1: Clearance to combustibles: Some new gypsum board partitions have been added around the existing ductwork since its original installation. These partitions are considered limited-combustible and have been modified to meet the minimum of 3 inches per section 4.2.1.

Item 2: Duct-to-duct connections: There were 17 flanges in the existing ductwork which deviate from the welded connection types per 7.5.5.1. The contractor has sealed them with high temperature silicone caulking as an additional protection to leaks. Typical flange shown below prior to sealant.



Item 3: Duct penetration through CMU shaft: Per Section 7.7.1.1 this penetration should be sealed with fire caulking to maintain the fire resistance rating (Assumed at 2-hour rated). Shown below, duct penetration looking up shaft with original insulation.



Item 4 Fan operation: Currently upon failure of the exhaust fan, an alarm is sent to the building management system. This differs slightly from section 11.1.6 which states that the cooking equipment shall not be operated while is it nonoperational or impaired.

Additionally, the existing system was been inspected and fully cleaned by Hoodz © of Auburn, ME on June 18, 2013.

Please contact us with any questions or clarifications.

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