

**Solid Fuel (Wood) Fire Kitchen – Charlotte, NC**

FCS19-1001

October 9, 2019

**Location: One Bank of America Plaza, Bank of America Tower, Charlotte, NC****Background:**

The Fire Department responded to a fire at 2:42pm on Monday, September 30<sup>th</sup> at a solid fuel wood fire kitchen at the 100 block of College Street, Bank of America Tower, Charlotte NC. The fire started on the second floor of the building and quickly became a 3-alarm fire involving 65 firefighters.

This restaurant uses a high risk, solid fuel, wood rotisserie and wood pizza oven cooking process. The facility has field welded, black iron grease ductwork which traverses multiple floors and has numerous horizontal runs.

**Details:****Cause of Fire:**

- High risk cooking process involving solid fuel, wood rotisserie and pizza oven. This process produces a high volume of grease and creosote in exhaust ducts.
- Complicated duct runs exist at this facility, including long horizontal runs, low spots in the duct, and pollution control units.
- Low points are present in the grease duct; some are inaccessible for proper cleaning. This allowed fuel to build up in the duct.
- Inadequate fire suppression system in the hood and pollution control system. The system discharged but did not extinguish the fire.
- The hood/duct cleaning company was onsite the day before the fire, but due to inadequate cleaning, the fuel sources were not adequately removed.

**Damages:**

- The Fire Department estimates property loss at \$1.5 Million.
- Hundreds of people were evacuated from the 30 story Bank of America Tower, adjacent hotel and nearby office buildings.
- Six people were trapped in a stairwell and needed to be assisted out of the building.
- Restaurant and the adjacent parking garage are shut down indefinitely.
- Multiple roads were blocked by emergency vehicles, shutting down traffic. Police officers were called in to direct traffic.
- Smoke damage occurred in the upper floors of the tower.

**Recommended Changes and Lessons Learned:**

- Solid fuel cooking appliances should be replaced by conventional non-solid fuel cooking appliances.
- Solid fuel, creosote and superheated grease are major fire hazards. They require modern hood, duct and fire suppression solutions.
- Proper hood, fire system and duct design are required for high risk, solid fuel applications.
- New listed duct must be installed to properly contain future fires.
- CORE Fire Protection with unlimited water from the fire sprinkler system should be installed in the hood and pollution control units to adequately defend against future fires.
- Self-cleaning hoods with a daily wash cycle should be used to minimize duct fuel load.
- Downstream duct fire detection and suppression should be utilized to detect and eliminate fires that originate in the duct, downstream of the hood.
- Legitimate preventive maintenance (PM) contracts with a reliable service company must be in place to ensure proper system operation and maintenance.

**Supporting News Reports:**

<https://www.wcnc.com/article/news/local/fire-breaks-out-at-restaurant-in-uptown/275-ad1583d7-036b-419f-98ba-63a0d4e08326>

<https://www.wsocv.com/news/local/crews-battle-3-alarm-fire-at-restaurant-in-heart-of-uptown/991972850>

<https://www.wbtv.com/2019/09/30/crews-battle-3-alarm-fire-restaurant-uptown-charlotte/>

<https://www.fox46charlotte.com/news/person-shot-near-3-alarm-fire-in-uptown-charlotte-was-innocent-bystander-police-say>

**Photos:**



**Questions:**

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