

Overnight Appliance Fire, CORE and PCU CORE – Philadelphia, PA

FCS19-1003

October 25, 2019

Location: Market Street, Philadelphia, PA**Background:**

CORE Fire Protection (installed in the kitchen exhaust hood) and PCU CORE Fire Protection (installed in the pollution control unit) simultaneously activated in the early morning hours of Thursday, October 24th, in a restaurant kitchen located on the first floor of a multi-story, city-center Philadelphia high rise.

During the previous night's cleanup, cooking staff unintentionally left a plastic step stool and cleaning rags on top of an open burner gas range. These items were ignited and began to burn early the next morning. The rapid rate-of-rise detected by integrated controls triggered the activation of the CORE Fire Protection System in the kitchen hood and the interlocked PCU CORE Fire Protection System in the pollution control unit (PCU). Simultaneously, CASLink Remote Monitoring + Control sent out automatic alerts that the CORE Fire Protection Systems had activated. The rapid response of the fire systems quickly extinguished the fire and prevented any damage (aside from the cleaning rags and step stool). No one was injured and there was no major damage to the appliances or kitchen at large. The morning cooking staff cleaned the appliances, including the fryers, which required the oil to be discharged and replenished. The PCU filters were also removed and replaced.

The CORE Fire Protection System and PCU CORE Fire Protection System use a mild chemical surfactant (similar to dish soap) that does not oxidize typical commercial kitchen appliances, unlike other wet chemical agents that can be caustic. Both CORE Fire Protection Systems were quickly recommissioned, the kitchen was cleaned, and the restaurant was able to resume normal operations by lunchtime.

Details:**Cause of Fire:**

- Used cleaning rags and a plastic step stool were left unintentionally on a gas appliance overnight.
- The pilot light of the gas burner ignited the rags and step stool.

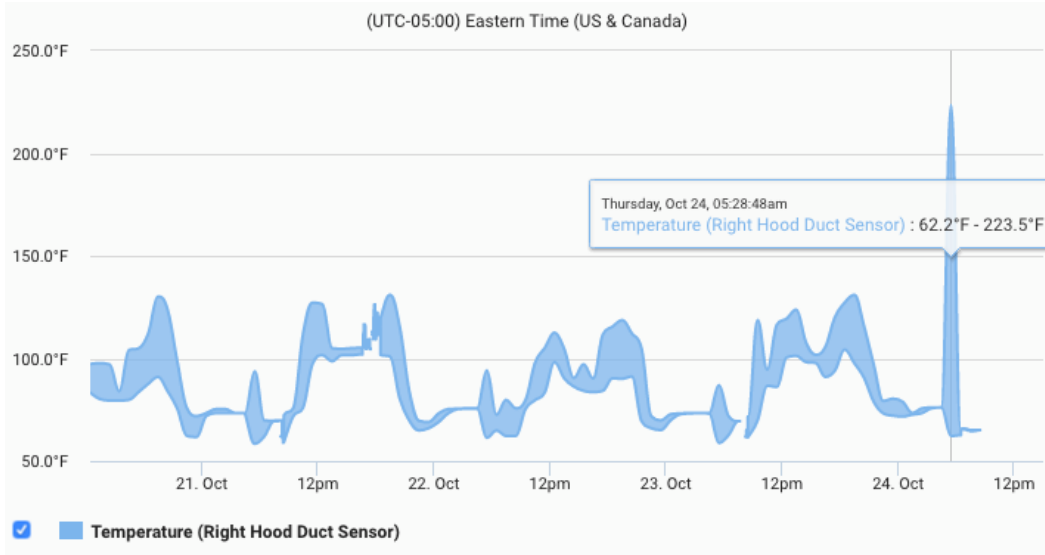
Damages:

- No significant damages reported.
- Evacuation of the high rise was not required.
- Cooking oil in fryers replaced.
- PCU filters replaced.
- Step stool and rags discarded.

Recommended Changes and Lessons Learned:

- Care should be exercised by cooking staff to be alert to the dangers of gas appliances.
- The reliable CORE Fire Protection Systems with advanced detection and controls quickly and safely extinguished the fire and prevented any serious damage from occurring.
- CORE Fire Protection System's Total Flood Coverage and unlimited supply of water ensured that the entire hazard area was completely covered and suppressant continued to flow until the fire was fully extinguished and protected from reflash. The overlapping nozzle design (not appliance-specific) guaranteed that any post-installation adjustments to the cooktop layout had not affected the fire suppression coverage range.
- The CORE interlock network ensured that all CORE Fire Protection Systems simultaneously activated, offering total system protection and peace of mind to the user.
- CASLink Remote Monitoring + Control data provided important information to pinpoint the location and method of fire system activation. CASLink used built-in alert functions to immediately notify users of system activation and provided additional alerts when the hood or CORE Fire Protection System required attention.

Supporting Photographs:



CASLink data highlights the immediate rate-of-rise in temperature.



Burnt rags [left] and melted step stool [right] on top of gas burner range.

Questions:

Please send any feedback or improvement suggestions to app_eng@captiveaire.com.