



# FIRE DEPARTMENT

9 METROTECH CENTER

BROOKLYN, N.Y. 11201-3857

## CERTIFICATE OF APPROVAL # 5510 THIS CERTIFICATE IS REVOCABLE, NOT TRANSFERABLE AND EXPIRES ON June 1, 2012

June 2, 2009

Mr. Tom Summers  
NYC Regional Manager  
Captive-Aire Systems, Inc.  
419 Lafayette St 3<sup>rd</sup> Fl  
NY, NY 10003

F.P. Index#: 0901018D

FPIMS#: 29006459

By order of Fire Commissioner Nicholas Scoppetta, and pursuant to FC112 of the New York City Fire Code, the following equipment or material is accepted for use provided the conditions as outlined below are in full compliance.

**Manufacturer:** Captive-Aire Systems, Inc.

**Product:** Pollution Control Unit

**Model Number:** PCU Series (PCU-1, PCU-2, PCU-3, PCU-4, PCU-5, PCU-6).

**Pertinent Code Sections:** § 112-01(b)(1)(D) and § 901.4.5 of New York City Fire Code

**Prescribed Tests:** UL710, UL1046 and UL 900

**Laboratory:** Intertek Testing Services NA Inc.

**Report:** 3175852SAT-001 Issued: 04-28-2009 and 3130718COL-001 revised on 11/26/08

**Description:** The unit consists of a primary UL 1046 tested and MEA listed 247-96-E baffle filter the secondary stage houses an Ashrae 52.2-2007 Tested, UL 900 Class 1 rated AirGuard High Efficiency Medium density particle filter, the Third Stage houses a UL 900 Class 1 rated Airguard Micropleat HEPA filter and the fourth stage consists of an ASTM-D-3467 tested activated carbon filter.

This PCU unit also includes a UL94V0 listed McMaster-Carr extreme temperature tubing which is connected to a CE Listed Dwyer Differential Pressure Switch. This switch is preset from the Captive-Aire factory to .15" w.c. above the internal static pressure of the PCU with clean filters. The switch monitors the pressure drop between the beginning of the first stage filter and the end of the last filter. Once filters become clogged, the switch closes and illuminates a light in the kitchen on the Hood Control Panel. User should then clean or replace filters as required.

**Description:** This PCU unit includes an Ansul R-102 fire suppression system listed to UL 300, MEA 59-95-E. The system shall consist of an ANSUL AUTOMAN regulated release assembly which includes a regulated release mechanism and a wet chemical storage tank housed within a single enclosure. Each discharge nozzle in PCU unit shall be a tested and listed R-102 system 1W nozzle. Nozzles tips shall be stamped with the flow number designation (1W). Each nozzle shall have a metal or rubber blow-off cap to keep the nozzle tip orifice free of cooking grease build-up. Distribution piping shall be Schedule 40 black iron, chrome-plated, or stainless steel pipe conforming to ASTM A120, A53, or A106. The detectors shall be the fusible link style or Detect-A-Fire's Thermal Sensor designed to activate at 360 °F.

The fire suppression system used in these PCU units is directly linked to the appliances under the hood. If the fire suppression system activates, the appliances will be shut down. A remote pull handle is also required for operator activation. In the event of a fire in the cooking appliance and the activation of the fire extinguishing system, the power to the cooking appliance is terminated.

## **Conditions of Approval:**

1. The above referenced PCU unit shall not be provided with fire dampers.
2. Prior to installation of the above referenced PCU unit, plans must be filed with and accepted by New York City Department of Buildings(DOB). Additionally, a copy of DOB docketed plans shall be transmitted to the Fire Department for review and approval.
3. Approved automatic fire extinguishing system shall be provided for the component filter sections and the ductwork down stream of the equipment. The fire extinguishing system shall be suitable for the above referenced PCU units and subject to the Range Hood Inspection Unit's approval.
4. Two weeks after startup,. The entire unit and duct shall be inspected for grease leaks. Clean 1<sup>st</sup> Stage filters in warm soapy water. Monitor all filters loading to determine the frequency of cleaning. All fasteners and hardware should be checked for tightness each time maintenance checks are performed prior to restarting unit.
5. 1<sup>st</sup> Stage filter should be cleaned monthly with warm soapy water. 2<sup>nd</sup> Stage filter, HEPA filter and carbon filter should be inspected monthly and replaced if clogged.
6. The entire PCU shall be inspected, cleaned and replaced if necessary, by qualified employees of the restaurant owner or by a cleaning agency. A record of such inspection and cleaning shall be kept on the premises for inspection.
7. Installation, maintenance, cleaning procedures and use of the above referenced products shall comply with all applicable New York City Fire Code, Construction Codes, rules and regulations.

**EXPIRES ON June 1, 2012**

**Page 3 of 4**

8. Certificate of Approval number shall be plainly and permanently stamped or otherwise affixed upon each product by the manufacturer or by the local sales representative of the manufacturer/applicant.  
**NOTE:** Product must already be identified with Certificate of Approval number before it arrives at New York City job site.
9. The Fire Suppression system should be service by an authorize fire suppression company semi-annually. The fusible links used in our hoods are to be changed annually and are date stamped by NYC code.
10. Intertek ETL's listing requirements and limitations shall be complied with and manufacturer's installation, maintenance procedures and safety limitations shall be complied with.
11. All installations shall be subject to inspection by representatives of the Bureau of Fire Prevention which may result in added requirements being imposed.
12. The entire exhaust system shall be inspected at least once every three months. Filters shall be inspected, cleaned and replaced by qualified employees of the restaurant owner or by a cleaning agency. A record of such inspection and cleaning shall be kept on the premises for inspection.
13. Only UL Classified CLASS I (UL900 rated) filters can be used. Filters shall be cleaned and replaced once every three months or more frequently if necessary.
14. The Fire Department's condition of approval shall be enumerated in the installation manuals and brochures which will be provided to all New York City buyers, users and installers.
15. The Fire Department Certificate of Approval does not constitute an endorsement or recommendation of your product by the Fire Department, but is a certification that your product, as represented, meets the standards as of the date of issuance.
16. The Fire Department reserves the right to withdraw this approval at any time in the event there is a reasonable doubt that the product does not operate or perform as required by code, the conditions of this resolution or as represented in your application
17. The Certificate of Approval is issued upon condition that the equipment's technology does not violate any patent, trade name / secret or other intellectual right.
18. As the manufacturer of this equipment, you should be aware that any end user who fails to comply with the condition as outlined in the acceptance will be subject to enforcement action which may include fines and imprisonment.

COA #5510 for Captive-Aire Systems, Inc.'s PCU Series (PCU-1, PCU-2, PCU-3, PCU-4, PCU-5, PCU-6).

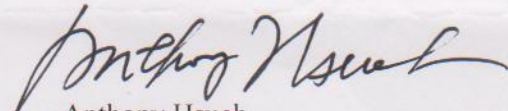
June 2, 2009

**EXPIRES ON June 1, 2012**

**Page 4 of 4**

Any change in company name or ownership, product name, material of construction, product design, or model number of any product included on this certificate must be immediately reported to this Department in writing.

Very truly yours,



Anthony Hsueh  
Senior Project Manager  
Technology Management

AH / 55100512.doc