COMMERCIAL KITCHEN EXHAUST SYSTEM ACCEPTANCE

CERTIFICATE OF ACCEPTANCE		NRCA-PRC-02-F
Commercial Kitchen Exhaust System Acceptance		(Page 1 of 3)
Project Name:	Enforcement Agency:	Permit Number:
Project Address:	City:	Zip Code:

Note: Submit one Certificate of Acceptance for each system that must demonstrate compliance.	Enforcement Agency Use: Checked by/Date

Intent:	*Verify that airside economizers function properly*

A. Construction Inspection
1. Supporting documentation needed to perform test includes:
a. 2016 Building Energy Efficiency Standards Nonresidential Compliance Manual *(NA7.5.4 Air Economizer Controls Acceptance At-A-Glance).*
b. 2016 Building Energy Efficiency Standards.
2. Instrumentation to perform test includes:
a. Space differential pressure sensor Calibration Date: _____(must be within last year)
b. Recording Analog Manometer with Pitot Tube and VelGrid Calibration Date: _____(must be within last year)
3. Installation: (**all** of the following boxes should be checked)
☐ Exhaust and make-up air systems and installed and fully functional.
☐ Demand Ventilation Control systems (if installed) are fully functional and have been set up and calibrated by the installing contactor
☐ For Kitchens with >5,000 cfm of Type I and Type II kitchen hood exhaust, All Type I hoods meet the requirements of Table 140.9-A

B. Functional Testing		**Results**
The following acceptance test applies to systems with and without demand control ventilation exhaust systems. These tests shall be conducted at full load conditions for each hood.		
Step 1: Setup:		
a.	Operate all sources of outdoor air providing replacement air for the hoods.	Y / N
b.	Operate all sources of recirculated air providing conditioning for the space in which the hoods are located.	Y / N
c.	Operate all appliances under the hoods at operating temperatures.	Y / N
Step 2: Verify the following:		
a.	Verify that the thermal plume and smoke is completely captured and contained within each hood at full load conditions by observing smoke or steam produced by actual cooking operation and/or by visually seeding the thermal plume using devices such as smoke candles or smoke puffers. Smoke bombs shall not be used (note: smoke bombs typically create a large volume of effluent from a point source and do not necessarily confirm whether the cooking effluent is being captured). For some appliances (e.g., broilers, griddles, fryers), actual cooking at the normal production rate is a reliable method of generating smoke). Other appliances that typically generate hot moist air without smoke (e.g., ovens, steamers) need seeding of the thermal plume with artificial smoke to verify capture and containment.	Y / N
b.	Verify that space pressurization is appropriate (e.g. kitchen is slightly negative relative to adjacent spaces and all doors open/close properly).	Y / N
c.	Verify that each Type 1 hood has an exhaust rate that is at or below the maximum allowed.	Y / N / NA

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Step 3: Make adjustments as necessary until full capture and containment and adequate space pressurization are achieved and maximum allowable exhaust rates are not exceeded. Adjustments may include: adjust exhaust hood airflow rates; Add hood side panels; Add rear seal (back plate); Increase hood overhang by pushing hood back; and Relocate supply outlets to improve the capture and containment performance	
Step 4: Measure and record the final airflow for each Type I hood.	Y / N / NA

The following additional acceptance test shall be performed on all exhaust hoods with demand control ventilation exhaust systems.		
Step 5: Turn off all kitchen hoods, makeup air and transfer systems		
Step 6: Turn on one of the appliances on the line and bring to operating temperature. Confirm that:		
a.	DCV system automatically switches from off to the minimum flow setpoint.	Y / N
b.	The minimum flow setpoint does not exceed the larger of: 50% of the design flow; or, the ventilation rate required per Section 120.1.	Y / N
c.	The makeup air and transfer air system flow rates modulate as appropriate to match the exhaust rate.	Y / N
d.	Appropriate space pressurization is maintained.	Y / N
Step 7:		
	Press the timed override button. Confirm that system ramps to full speed and back to minimum speed after override times out.	Y / N
Step 8: Operate all appliances at typical conditions. Apply sample cooking products and/or utilize smoke puffers as appropriate to simulate full load conditions. Confirm that:		
a.	DCV system automatically ramps to full speed.	Y / N
b.	Hood maintains full capture and containment during ramping to and at full-speed.	Y / N
c.	Appropriate space pressurization is maintained.	Y / N

C. Testing Results	**PASS**	**FAIL**
Step 1: Smoke was fully captured?	☐	☐
Step 2: All Type I hoods are drawing exhaust at less than or equal to the values in Table 140.9-A.	☐	☐
Step 3: DCV and MUA system respond (all Yes).	☐	☐
Step 4: Timed override works.	☐	☐
Step 5: DCV and MUA systems respond to full load conditions (all Yes).	☐	☐

D. Evaluation
☐ PASS: All **Construction Inspection** responses are complete and all **Testing Results** responses are "Pass".
Notes:

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Acceptance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Documentation Author Company Name:	Date Signed:
Address:	CEA/HERS/ATT Certification Identification (If applicable):
City/State/Zip:	Phone:

FIELD TECHNICIAN'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Acceptance is true and correct.
2. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician).
3. The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements indicated in the plans and specifications approved by the enforcement agency, and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7.
4. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and signed by the responsible builder/installer and has been posted or made available with the building permit(s) issued for the building.

Field Technician Name:	Field Technician Signature:	
Field Technician Company Name:	Position with Company (Title):	
Address:	CEA/HERS/ATT Certification Identification (If applicable):	
City/State/Zip:	Phone:	Date Signed:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. I am the Field Technician, or the Field Technician is acting on my behalf as my employee or my agent and I have reviewed the information provided on this Certificate of Acceptance.
2. I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Acceptance and attest to the declarations in this statement (responsible acceptance person).
3. The information provided on this Certificate of Acceptance substantiates that the construction or installation identified on this Certificate of Acceptance complies with the acceptance requirements indicated in the plans and specifications approved by the enforcement agency, and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7.
4. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and is posted or made available with the building permit(s) issued for the building.
5. I will ensure that a completed, signed copy of this Certificate of Acceptance shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Acceptance Person Name:	Responsible Acceptance Person Signature:	
Responsible Acceptance Person Company Name:	Position with Company (Title):	
Address:	CSLB License:	
City/State/Zip:	Phone:	Date Signed:

NRCA-PRC-02-F User Instructions

Section A. Construction Inspection

This section consists of check boxes for checking the condition of the sensors, equipment and systems before beginning the actual test. Complete each check box to confirm that the construction inspection is complete for all items.

Section B. Functional Testing

This section consists of the steps followed during the acceptance test. Enter data as instructed in each column or answer either yes or no to the yes/no questions.

Section C. Testing Results

This section consists of data entry requirements for the results of the test(s). Enter data associated with the appropriate system type as instructed.

Section D. Evaluation

This section briefly describes the steps followed during the acceptance test. Enter either Pass or Fail in the boxes next to the steps. Any portion that fails should be explained in the given rows.

Documentation Author's Declaration Statement

- NAME is the name of the person completing this compliance document.
- COMPANY is the name of the company the DOCUMENTATION AUTHOR represents.
- ADDRESS is the address of the COMPANY.
- CITY/STATE/ZIP is the city, state and zip code of the COMPANY.
- SIGNATURE is the signature of the DOCUMENTATION AUTHOR.
- DATE is the date on which the acceptance test was completed and the DOCUMENTATION AUTHOR signed the compliance document.
- CEA, HERS OR ATT CERTIFICATION # is the certification number of the CEA (Certified Energy Auditor), HERS (Home Energy Rating System) or ATT (Acceptance Test Technician) certification, in case the DOCUMENTATION AUTHOR is CEA, HERS or ATT certified.
- PHONE is the phone number where the DOCUMENTATION AUTHOR can be reached during regular business hours.

Field Technician's Declaration Statement

The FIELD TECHNICIAN is responsible for performing and documenting the results of the acceptance procedures on the Certificate of Acceptance compliance document. The FIELD TECHNICIAN must sign the Certificate of Acceptance to certify that the information he or she provides on the Certificate of Acceptance is true and correct. It is important to note that the FIELD TECHNICIAN is not required to have a contractor's, architect's or engineer's license.

- COMPANY NAME is the name of the company that the FIELD TECHNICIAN represents.
- FIELD TECHNICIAN'S NAME is the name of the FIELD TECHNICIAN.
- FIELD TECHNICIAN's SIGNATURE is the signature of the FIELD TECHNICIAN.
- DATE SIGNED is the date on which the acceptance test was completed and the FIELD TECHNICIAN signed the compliance document.
- POSITION WITH COMPANY (TITLE) is the title of the FIELD TECHNICIAN in the company he represents, e.g. SENIOR ELECTRICAL TECHNICIAN.

Responsible Person's Declaration Statement

A RESPONSIBLE PERSON is eligible under Division 3 of the Business and Professions code in the applicable classification, to take responsibility for the scope of work specified by the Certificate of Acceptance document. The RESPONSIBLE PERSON can also perform the field testing and verification work, and if this is the case, the RESPONSIBLE PERSON must complete and sign both the FIELD TECHNICIAN's SIGNATURE block and the RESPONSIBLE PERSON'S SIGNATURE block on the Certificate of Acceptance compliance document. The RESPONSIBLE PERSON assumes responsibility for the acceptance testing work performed by the FIELD TECHNICIAN agent or employee.

- COMPANY NAME is the name of the company the RESPONSIBLE PERSON represents.
- PHONE is the phone number where the RESPONSIBLE PERSON can be reached during regular business hours.
- RESPONSIBLE PERSON'S NAME is the name of the RESPONSIBLE PERSON.
- RESPONSIBLE PERSON'S SIGNATURE is the signature of the RESPONSIBLE PERSON.
- LICENSE is the professional license number of the RESPONSIBLE PERSON.
- DATE SIGNED is the date on which the acceptance test was signed by the RESPONSIBLE PERSON.
- POSITION WITH COMPANY (TITLE) is the title of the RESPONSIBLE PERSON in the company he represents, e.g. SENIOR ELECTRICAL ENGINEER.