

BUILDING INSPECTIONS

Ventilation Control and Fire Protection of Commercial Cooking Operations (1997 OBC)

CLASSIFICATION DATA - (circle one)					
Exhaust hood with integrated supply air	YES	NO	Wet Chemical extinguishing system	YES	NO
Water wash system	YES	NO	Carbon Dioxide (CO2) extinguishing system	YES	NO
Thermal recovery unit	YES	NO	Piranha extinguishing system	YES	NO
Dry chemical extinguishing system	YES	NO	PERMIT NO.		

No	INSPECTION CHECKLIST			REFERENCE	V	L	R
1.	PROJECT REVIEW	a	Ensure that permit drawings are on site	8 (13) BCA			
		b	Hood and fire extinguishing system shop drawings on site	8 (13) BCA			
		c	Alternative Solutions have been explored to address changes on site	Policy			
		d	Inspections conducted using the K.I.S. method of site def. approval	Policy			
2.	GENERAL REQUIREMENTS	a	A minimum of 450 mm clearance to combustible materials	1-3.2.1			
		b	Lesser clearances of 450 mm as per listing or method of protection	1-3.2.1			
		c	750 mm clearance has been provided to limited-combustibles	1-3.2.1			
		d	Not more than 50% of duct surface is in contact with noncombustible	1-3.2.1			
3.	HOODS		CONSTRUCTION				
		a	Hoods constructed of minimum 18 gauge steel or 20 gauge s.s.	2-1.1			
		b	Seams, joints penetrations are liquid tight and continuous external weld or smooth, cleanable internal weld	2-1.2			
		c	Insulation and adhesives used with integrated outside make-up air have a f.s.r. less than 25	2-1.3			
		d	450 mm clearance provided between hood and combustibles or installed to listing standards or method of protection used	1-3.2.1			
		e	Penetrations are welded or have listed devices and gasket	2-1.2			
		f	Dimensions of hood incorporate all equipment within the 'foot print'	2.2			
		g	Internal joints and seams are sealed or made grease tight	2-1.2			
		h	Listed hoods conform to the manufacturer's installation instructions	2-4			
		I	Duct from an oven flue connected upstream of the exhaust plenum of an eyebrow-type hood.	2-1.2			
			INTEGRATED OUTSIDE MAKE-UP AIR				
		a	Fire damper is secured to the hood	2-3.1.1			
		b	Access to the fire damper is through an access door located in the duct	2-3.1.1			
		c	Air register grille does not penetrate the outer liquid-tight shell of the hood. Fire damper installed when penetration of outer shell occurs	2-3.1.1			
		4.	DUCT SYSTEMS		GENERAL		
a	Fire wall constructed of masonry not penetrated by exhaust duct			4-1.1			
b	Fire separation integrity maintained			4-1.1			
c	Exhaust ducts lead directly as possible to the exterior			4-1.2			
d	Exhaust ducts not interconnected with other heating systems etc.			4-1.3			
e	Installation does not contain dips or traps in the exhaust duct			4-1.4			
f	For common duct systems the bottom of main duct is flush with the branch duct			4-1.4			
g	Access panels in duct work are identified with a sign			4-1.6			
	CLEARANCE						
a	Minimum of 450 mm clearance to combustible materials			4-2.1			
b	Lesser clearances in accordance with the permit documents			B.C.A.8(13)			
b	Method of protection (appendix a) not used with fire rated shaft			1-3.2.2			
c	Unlisted materials used to provide protection not fastened to the duct			1-3.2.2			
d	Not more than 50% of duct perimeter is in contact with non-combustible			1-3.2.2			
e	A min. of 75 mm clearance has been provided to limited combustibles			1-3.2.2			
	OPENINGS						
a	Clean out at each change in direction and at each floor level			4-3.1 & 4-3.4.3			
b	Listed hoods incorporating damper in the exhaust, access to damper is < 450 mm from hood or is accessible from under the hood			4-3.2			
c	Openings are min. 500 mm x 500 mm or located 3,600 mm o.c.			4-3.4.1			
d	Openings are on the side or top of the duct			4-3.1			
e	Openings are > 38 mm from the lower edge of a horizontal duct			4-3.4.2			
f	Access panels are constructed of the same material as the duct and are grease-tight with a gasket and with fasteners			4-3.4.4			
	LISTED GREASE DUCTS						
a	The duct has been installed in accordance with the listing			4-4			
	COMMON GREASE DUCTS						
a	Exhaust ducts constructed of 16 gauge steel or 18 gauge stainless steel			4-5.1			
b	Seams, joints, penetrations and the duct to hood collar connection are liquid-tight continuous external lap weld or a smooth internal lap weld			4-5.2.1			
c	All exhaust ductwork is externally or internally lap welded, except duct-to-hood collar connection			4-5.2.1			
	EXTERIOR INSTALLATIONS						
a	Exhaust duct provided with adequate supports from structure			4-6.1			
b	Exhaust duct is painted or is stainless steel			4-6.2			
c	450 mm clearance between exhaust duct and combustible roof			4-6.1			
	INTERIOR INSTALLATIONS						
a	Continuous fire separation enclosure from lowest fire-rated ceiling or floor above the hood, through concealed spaces to roof	4-7.1					
b	450 mm clearance between exhaust duct and enclosure, 150 mm to gypsum board is permitted	4-7.2.3					
No	INSPECTION CHECKLIST			REFERENCE	V	L	R

		c	Openings in a fire separation equipped with rated/listed closures	4-7.5			
			TERMINATION OF DUCTS				
		a	Exhaust duct terminates through a noncombustible wall or roof	4-8.1.1			
		b	Minimum 3000 mm clearance to adj. Bldg. Windows, etc.	4-8.2.1			
		c	Discharge a min. 1000 mm from roof and directed away from roof	4-8.2.1			
		d	Exhaust duct and fan capable of being drained of grease	4-8.2.1			
		e	Safe access to roof surface for inspection	4-8.2.2			
		f	Exhaust fan supplied with flexible weatherproof electrical cable	4-8.2.2			
5.	GREASE REMOVAL DEVICES IN HOODS	a	Listed grease removal device installed to manufacturer instructions	3-2.1			
		b	Device is non-combustible and 450 mm from cooking surface	3-2.1			
		c	Baffles installed to direct gas outlet away from device	3-2.2			
		d	1200 mm vertical distance between device and char broiler surface	3-2.1			
		e	Device is tight fitting and at an angle greater than 45 degrees	3-2.5			
		f	Drip tray installed beneath devices and sloped to metal container	3-2.6			
		g	Device oriented to drain grease	3-2.7			
6.	AIR MOVEMENT	a	Correct size exhaust fan model and fan motor installed	5-2.1			
		b	In-line exhaust fans have motors located outside air stream	5-1.2			
		c	When the fan is located in a building, the room is fire-rated same as the enclosure rating around the duct	BCA 8(13)			
		d	Extinguishing system causes fan shut down, unless designed not to	5-2.3			
		e	Replacement air supply to kitchen area	5-3			
		f	Hood with integrated make-up air have a fire damper in supply	BCA 8(13)			
		g	Fire damper installed at bleed air ducts located within 300 mm of exhaust duct connection on master kitchen exhaust duct systems	5-4			
		h	Volume control installed at fire damper on master systems	5-4			
		I	Make-up air supply in hood shuts down at extinguishing discharge	5-3 exception			
		j	Tempering of replacement air	BCA 8(13)			
		k	Interconnection of replacement air and exhaust fan	BCA 8(13)			
7.	AUXILIARY EQUIPMENT	a	Dampers not installed in exhaust ducts, unless specifically listed	6-1			
		b	Wiring is not installed in ducts or hoods	6-2.1			
		c	Motors, lights or other electrical not in duct or hoods unless listed	6-2.2			
		d	Lighting units have steel enclosures, glass and listed for use	6-2.3			
8.	FIRE EXTINGUISHING EQUIPEMENT (NFPA 17, 17A)	a	Listed water-wash system installed for to protect devices and hood	7-1.1			
		b	Protection of devices, hood, duct system, cooking equip and air cleaners	7-1.1, 7-1.2			
		c	Portable fire extinguisher installed, 40BC dry chemical type	7-5.1			
		d	Manual activation provided in path of egress, max. 5' above floor	2-6.3.4 (17)			
		e	Electrical activation provided with reserve power	2-6.5 (17)			
		f	Simultaneous operation in a single hazard area (refer to design)	7-3.1.2			
		g	Operation of exting. system shuts off fuel/energy automatically	7-3.1.3			
		h	Automatically sends signal to the fire alarm system upon operation	7-3.1.4			
		I	Fusible link or heat detector provided above each cooking appliance or group protected by single link or detector	6-3.5 (17)			
		j	Fusible link or detector within 12" of entrance to duct	6-3.5 (17)			
		k	Location of nozzles as per shop drawings, ie, surfaces, ducts, plenums	8.1.3.1.(4)			
		l	Nozzles are the correct type and have blow-off caps	B.C.A.8(13)			
		m	External weld or listed device where hood or duct penetrated	8.1.3.1.(6)			
		n	Nozzle has internal strainer or separate strainer up stream, wet system	7-10.4.1 (17A)			
		o	Pipe and fittings are non-combustible and securely supported.	2-9.1 to .4 (17)			
		P	Valves are listed for intended use	2-9.3 (17)			
		q	Sufficient supply of dry, co2 or wet chemical with visual indicator	2-7.1, 8.3 (17)			
		r	For circulating systems a nozzle has been installed immediately before and after the first grease filter; between the last filter and the blower	10-5.1			
		s	For circulating system, actuation device installed downstream of electrostatic precipitator	10-5.2			
9.	CERTIFICATION AND TESTING (NFPA 96 § 17)	a	Installer provided written certification and certified by manu. to install system	7-4.2			
		b	Approval test conducted to verify proper installation and function	BCA 18 (1)			
		c	Exhaust and replacement air fans operational, including interlocks	5-1, 5-3			
		d	Results of 'smoke bomb' test submitted for suspect welded ductwork	BCA 18 (1)			
		e	A copy of manufacturer's installation and maintenance instructions on-site	6-3.7 (17)			
		f	Exhaust fan continues to operate unless designed to shut down when activated	5-2.3			
10.	MINIMUM SAFETY REQUIREMENTS	a	Minimum of 16" distance between deep fat fryer and surface flames	9-1.2.2			
		b	Deep fat fryers have separate high limit and control (max. 475 degrees F)	9-2			
11.	RECIRCULATING SYSTEMS	a	Installation of hood, devices & clearances conform to other parts of checklist	10-1			
		b	Exhaust fan shuts down upon fire exting. discharge or as based on listing	10-1			
		c	Auxiliary equip. installation conforms to other parts of this checklist	10-1			
		d	Electrical wiring within interior sections of hood plenum conforms to listing	10-2.5			
		e	Fire extinguishing system installed, tested and conforms to sections 8 & 9	10-1			
		f	Only gas or elec. Fueled cooking appliances. Gas fueled are separately vented	10-2.1			
		g	Recirculating system is listed by recognized testing laboratory	10-2.2			
		h	Cooking appliances conform to type of appliances in listing	10-2.3			
		I	Fire damper installed at the exhaust outlet of the system	10-2.4			
		j	Airflow closure panels, filter components & min. airflow interlocks installed	10-3			
		k	Each electrostatic precipitator has a sensor and manual reset	10-3			

COMMENTS				V	Date	Inspector	V	Date	Inspector
				A			C		
				B			D		

COMPLIANCE											
BUILDING INSPECTOR			DATE			CO-SIGNER			DATE		

LEGEND

V - Visit/inspection R - revisit/reinspection L- Legal status X - Not applicable ✓ - In compliance N - Not Visible ● - Not in compliance