# BBS MEMO

Board of Building Standards | Nnvcmhor 30, 1995 | 2323 West Fifth Ave., Box 825, Columbus, Ohio 43216

## COMMERCIAL EXHAUST HOODS

BBS staff has received several requests for clarification of Section M-502.1, "Commercial cooking appliances." This section requires a commercial exhaust hood for every commercial cooking appliance. Exceptions are provided for appliances located within a dwelling unit, completely enclosed ovens, steam tables, auxiliary cooking equipment, and factory-built ductless range hoods tested in accordance with UL Subject 197A.

However, it is important to understand what is meant by a "commercial cooking appliance." Building officials should determine the frequency of use and the quantities of grease-laden vapors produced by the cooking appliance and/or the cooking operation. BOCA Code Interpretation No. 4/M501/90[1] states that the intent of this section is to require commercial kitchen exhaust hoods only where the equipment or use of the equipment releases grease-laden vapors on a frequent basis, and in quantities sufficient to create a health or fire hazard without the commercial exhaust hood. BOCA provides examples of occupancies that might not require a commercial kitchen exhaust hood, including "church assembly halls; child care facilities; school, office, or factory lunchrooms; police or fire stations; bed-and-breakfast lodgings; VFW and similar halls; domestic-type kitchens in institutional occupancies; and charity soup kitchens."[2] Examples of kitchen appliances that would typically require commercial exhaust systems include "...deep fryers; griddles (flat or grooved); tilting skillets or woks; braising and frying pans; charbroilers; salamander and upright broilers; infrared broilers; open burner stoves and ranges; and barbeque equipment."[3] Kitchen areas in cafeterias, restaurants, dormitories, hotels, etc, where the kitchen will be used frequently and produce grease laden vapors also require commercial exhaust hoods.

When the applicant/owner has indicated they will be limiting the production of grease-laden vapors, that condition should be specified on the Certificate of Occupancy so that fire code inspectors and other licensing personnel will be made aware of the limitation.

## SECTION 917.8 TO BE REVISED

Currently, the fourth sentence of Section 917.9 reads, "The minimum sound pressure levels shall be seventy dBA in buildings of use group R-l and I-1;..." This sentence conflicts with the text of the BOCA National Building Code", which reads, "The minimum sound pressure levels shall be seventy dBA in buildings of Use Group R and I-1. The current OBBC text unintentionally removes higher sound pressure level requirements from the R-2 and R-3 occupancies.

Building officials are encouraged to recommend to designers/applicants/owners to provide a 70 dBA sound pressure level in all R use groups. This requirement is in accordance with NFIPA 72.[5] Code officials should note that a 10 dBA reduction is the equivalent of a 66% reduction in the sound pressure level,[6] and could create inadequate alarm notification in sleeping occupancies. The BBS will process revisions to this section at its spring 1996, hearing.

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Notes:

1. BOCA National Code Interpretations, 1993, Building Officials end Code Administrators International, Inc., Country Club Hilb, Illinois, September, 1994, p. 95.
2. The BOCA National Mechanical Code/1993 Commentary, Building Officials 6nd Code Administrators International, Inc., Country Club Hills, Illinois, March. 1994, p. 5-2.
3. ibid, p. 5-2.
4. BOCA National Building Code/1993, Building Officials and Code Administratom International, Inc., Country Club Hills, Illinois, January, 1993, Section 917.S, p.93.
5. NFIPA 72 National Fire Alarm Code, National Fire Protection Assooiation, Quincy, Massachusetts, 1993 Edition, Section 6-3.5, p. 72-95.
6. ASHRAE Handbook, 1985 Fundamentals, American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., Atlanta, GA, 1985, Table 2, p. 7.2.