California State Fire Marshal

CODE INTERPRETATION

Date Issued	**06-17-02**	Interpretation #	**02-024**
Topic	**Automatic Shutdown with Multiple HVAC Units <2000 CFMs**		
Code Section(s)	**§608, California Mechanical Code (1998)**		
Requested by	**Mark F. Redmond** **Ted Jacob Engineering Group, Inc.** **1763 Broadway** **Oakland, CA 94612-2105**		

1. ***Does the California Mechanical Code require that automatic shutoff be provided for air-moving systems which are comprised of multiple terminal air volume boxes for zone control, all of which are less than 2000 cfms, that cumulatively supply air in excess of 2,000 cubic feet per minute to an enclosed space within buildings?***

   Yes. Section 608 of the California Mechanical Code requires that automatic shutoff be provided for *air-moving systems supplying air in excess of 2,000 cubic feet per minute* to enclosed spaces within buildings. Multiple HVAC distribution units including terminal air volume boxes for zone control which cumulatively supply air in excess of 2,000 cubic feet per minute to an enclosed space within buildings also would require automatic shutoff upon smoke detection. Several exceptions to the CMC Section 608 may apply based on individual conditions.

2. ***Do smoke detectors need to be installed in the main supply-air ducts of all of these HVAC units and interconnected for automatic shutoff of all the fan units?***

   Yes. CMC Section 608 requires the automatic shutoff for air-moving systems to be upon detection of smoke in the main supply-air duct served

by such equipment. Duct smoke detectors must comply with this requirement when they are listed for the air velocity, pressure, humidity, and temperature present in the HVAC system and located in all the main supply-air ducts downstream of both the fan and filters.

As an alternate to smoke detection installed in the main HVAC supply-air duct, Section 608 Exception #1 allows an area smoke detection system to be used to accomplish the required automatic shutoff, when smoke detectors are located in all areas served by the HVAC system.