



STATE OF LOUISIANA

DEPARTMENT OF PUBLIC SAFETY AND CORRECTIONS

OFFICE OF STATE FIRE MARSHAL

EDWIN W. EDWARDS
GOVERNOR

COL. PAUL W. FONTENOT
DEPUTY SECRETARY

June 27, 1995

Rodney F. Mayeux
RM FIRE PROTECTION CO., INC.
P. O. Box 48
Opelousas, LA 70571-0048

Dear Mr. Mayeux:

I am in receipt of your letter of June 27, 1995 in which you have requested clarifications regarding the code requirements pertaining to the location of chemical containers and expellant gas assemblies.

NFPA 17 (Dry Chemical Extinguishing Systems) and 17A (Wet Chemical Extinguishing Systems) specifically addresses this issue. NFPA 17:2.8 reads:

The dry chemical container and expellant gas assemblies shall be located near the hazard or hazards protected, but not where they will be exposed to a fire or explosion in these hazards.

NFPA 17A:2.8.4 (1990 Edition) reads:

Wet chemical container and expellant gas assemblies shall be located near the hazard or hazards protected, but not where they will be exposed to the fire.

You have documented that "all McDonald's locations have the system mounted within the confines of the cooking hood area." Be advised that this does not appear to satisfy the performance based requirement that the cylinders and expellant gas assemblies be located such that they would not be exposed to a fire in the hazard protected. Unless the hoods were oversized such that the cylinders could be placed within the confines of the hood area and still not be exposed to a fire occurring within the hazard protected, it would appear that the locations would not comply with this performance based requirement. While not mandatory, this office has on occasion imposed a minimum 3' separation on a case by case basis that in our subjective opinion that cylinders located within 3' of a hood, depending on the hazard protected, could be affected by a fire within the area protected. Unless it can be demonstrated that a fire would not affect a cylinder and expellant gas assemblies located closer than 3' of appliance, this would be a good rule of thumb.

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This office has not conducted a fire protection engineering analysis of the size of fire on particular cooking appliances. One could argue that a fire occurring on a four burner range would be substantially different than a fire occurring on a deep fat fryer. Therefore, cylinder locations with respect to a range as opposed to a deep fat fryer may be justifiably different. We will evaluate such proposals on a case by case basis. Additionally, if the engineer of record specifically requests to be allowed to locate cylinders and expellant gas assemblies closer than 3', this office will obviously take into consideration the design professionals engineering judgment in this matter. As a general rule, this office will look for these cylinders and expellant gas assemblies to be located 3' or more from the appliances protected unless the professional of record provides justifications as to why the cylinders should be allowed to be located closer. Documentation indicating that the locations will not be affected by a fire within the protected equipment must be provided.

This requirement is a performance based requirement. It only requires that the cylinders and expellant gas assemblies be located such that they would not be exposed to a fire within the hazards protected. The intent of this requirement is obvious; to locate the cylinder and expellant gas assemblies at sufficient distance away from the protected appliances in order to ensure that a fire on those appliances will not adversely affect the ability of the suppression system to adequately suppress a fire.

If you should have further questions or need additional clarifications, please feel free to contact this office.

Sincerely,



Jerry W. Jones
Chief Architect

JWJ/adg

cc: Plan Review Architects
State Fire Marshal District Offices
Jack Oliver

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