



**STATE OF LOUISIANA**  
DEPARTMENT OF PUBLIC SAFETY AND CORRECTIONS

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GOVERNOR

OFFICE OF STATE FIRE MARSHAL

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DEPUTY SECRETARY

**MEMORANDUM**

**TO:** Architects, Engineers, Contractors and Sprinkler Contractors

**FROM:** Jerry W. Jones  
Chief Architect *JWJ*

**SUBJECT:** Twenty Heads or Less Exemption Letter

**DATE:** April 16, 1990

This office developed the 20 head or less exemption in an effort to expedite the construction of small projects by allowing an exemption from the requirements to submit automatic fire sprinkler system shop drawings on smaller projects where existing sprinkler systems are only slightly modified.

Frankly, we are concerned that this exemption allowance is being abused. We therefore feel it is now necessary to refine this process.

The following is the reasoning used in the acceptance or rejection of a request for an exemption of submitting plans and calculations for a project.

Adding sprinkler heads can change the flow of water within the system, thereby changing the hydraulics of the system. For example, when the remote head has been designed for only 7 psi it is very possible that these changes can reduce this pressure, thereby rendering the system deficient according to NFPA 13.

This state allows automatic sprinkler systems to be designed as efficiently as possible. We do not require extra supplies of water or pressure to be arbitrarily included into the basic design of any systems. The designer may bring the required flow and pressure of water as close to the available flows and pressures as possible. Unless the designer includes a margin of safety, there are no margins of safety other than those provided by the codes themselves.

This office also does not maintain copies of the design of each system reviewed. By allowing more efficient designs there is less leeway for modifying systems once they are installed. Only the original designing company, if they check, can determine how much margin of safety is available. Consequently we assume that the original design was as efficient as possible and can absorb little or no change without rendering the system deficient.

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RE: Twenty Head or Less Exemption Letter

Due to this concern, the following is a clarification of the guidelines for the use of the twenty head or less exemption letter.

- A. As stated in its initial concept, it is intended to be used for minor modifications to an existing automatic sprinkler system, that is, to merely relocate some of the heads on an existing system and/or to add a small number of heads (six or less), the total number of heads affected is twenty or less.
- B. It is not intended to be used to expand an existing system by adding 20 heads or less to protect an addition to the building, a previously unprotected area, or to install a small system of less than twenty heads.
- C. It is also no longer intended to be used with NFPA 101:7-7.1.2 which adds up to six heads to the domestic water system. This is most often used in hospitals and sometimes in schools. A formal submittal generates a computer file and a letter, a copy of which is placed in the hospital's file. This is to eliminate situations such as recently discovered where a hospital has some fifty or sixty heads on the domestic water system.

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