



FLORIDA DEPARTMENT OF FINANCIAL SERVICES

TOM GALLAGHER
CHIEF FINANCIAL OFFICER
State Fire Marshal

In re the Matter of

Michelle Humphries,
Petitioner.

Case No.: 71489-03-SP

Petition for Declaratory Statement
to the Florida Department of
Financial Services

_____ /

DECLARATORY STATEMENT

THIS CAUSE came on for consideration upon the Petition for Declaratory Statement received on September 29, 2003, by the Department of Financial Services, hereinafter referred to as the Department, from Michelle Humphries, hereinafter referred to as Petitioner. Upon consideration thereof, and being duly advised, the Chief Financial Officer as State Fire Marshal, finds as follows:

1. The Chief Financial Officer as State Fire Marshal, has jurisdiction over the subject matter and the parties to this matter.

2. This Declaratory Statement is premised upon the assertions of fact set forth in the Petition for Declaratory Statement. Any modification to those assertions of fact could alter the conclusions set forth in this Declaratory Statement. None of the assertions of fact are admitted by the Department as being true and Petitioner's

question is being answered purely as a hypothetical one. If any of the facts asserted by the Petitioner are untrue or materially incomplete the conclusions of this Declaratory Statement could be significantly different.

3. If the Petition for Declaratory Statement contains various legal assertions, conclusions, and arguments, those assertions, conclusions, and arguments are not adopted by the Department and are not used as legal premises or authority for the conclusions of this Declaratory Statement. Legal assertions, conclusions, and arguments are considered only to illustrate the manner in which Petitioner may be an affected person entitled to have the Department issue this Declaratory Statement.

BACKGROUND and FACTS ASSERTED

4. Petitioner asserts that:

A. The University Laser research area employs the use of large laser tables with racks above and enclosure systems.

B. The application of the code (NFPA 13) as requiring sprinklers to be installed inside laboratory setups or further mandating that the table top spaces be open to the ceiling would be detrimental to the research.

C. Laser tables are arranged with racking systems on top of them to facilitate monitoring and support equipment for the research set up below.

D. Furthermore, the chambers often need to be enclosed to prevent dust and contaminants from affecting the research.

E. While some arrangements are long term the research can and does change.

F. The installation of sprinklers pinning the table and equipment in place would not facilitate the flexibility needed for the research.

G. The tables and their support systems above them vary in dimensions, some more and some less than 4 feet in width.

H. Their positions in the room relative to the sprinklers also vary though the department has been advised to maintain these systems below 18 inches from the level of sprinklers in the ceiling.

I. Some research projects are able to use an open grid type shelving rack material but once equipment is in place on the rack above the layer is no longer pervious. (Petitioner then attached photographs to indicate various examples of the described systems).

QUESTIONS

5. Petitioner's questions are:

A. Is it the intent of NFPA 13 that floor mounted equipment tables and their overhead support structures in excess of 4 feet in width and heights which would not be less than 18 inches from the ceiling be provided with additional sprinkler protection within their assembly?

B. If sprinkler protection is desired on the table top itself, will providing an open grate top surface (such as open wire shelving) suffice to allow water from above to penetrate through, and if so, how much equipment or dust shielding if any would be permitted on the shelving?

C. If the setup and racking above the table top were able to be restricted to less than 4 feet in width and maintained at least 18 inches below the level of sprinklers

in a room, could additional coverage be omitted regardless of overall length or location within the room relative to overhead ceiling sprinklers?

DISCUSSION

6. Although the question in 5.A., above, refers to “floor mounted equipment tables and their overhead support structures,” further inquiry revealed that the tables are not permanently installed or affixed to the floor.

7. The answer to the question can be found in NFPA 13, 1999 edition, subdivision 5-6.5.3.1 as cited by the petitioner, which states:

5-6.5.3.1 Sprinklers shall be installed under fixed obstructions over 4 ft. (1.2 m) wide such as ducts, decks, open grate flooring, cutting tables, and overhead doors.

Exception: Obstructions that are not fixed in place, such as conference tables.

8. Therefore, the tables need not be provided with additional sprinkler protection within their assembly; however, this exception is not unlimited, and care should be taken to insure that the water from the sprinklers can reach the intended areas of the room.

9. The question in 5.B., above, refers to the use of open grating that allows water to penetrate to the hazard and to the use of dust shielding.

10. The described method of allowing the flow of water is not acceptable because of the limitations of NFPA 13, 1999 edition, subdivision 5-5.5.3, titled, “**Obstructions that prevent sprinkler discharge from reaching the hazard,**” which states:

Continuous or non-continuous obstructions that interrupt the water discharge in a horizontal plane more than 18 in. (457 mm) below the

sprinkler deflector in a manner to limit the distribution from reaching the protected hazard shall comply with 5-5.5.3.

5-5.5.3.1 Sprinklers shall be installed under fixed obstructions over 4 ft. (1.2 m) wide such as ducts, decks, open grate flooring, cutting tables, and overhead doors.

Exception: Obstructions that are not fixed in place, such as conference tables.

5-5.5.3.2 Sprinklers installed under open gratings shall be of the intermediate level/rack storage type or otherwise shielded from the discharge of overhead sprinklers.

11. By way of information, **A-5.5.5.3** says:

Frequently, additional sprinkler equipment can be avoided by reducing the width of decks or galleries and providing proper clearances. Slatting of decks or walkways or the use of open grating as a substitute for automatic sprinklers thereunder is not acceptable. The use of cloth or paper dust tops for rooms forms obstruction to water distribution. If dust tops are used, the area below should be sprinklered.

12. The use of such open grating, while permitting the flow of water, may interrupt the designed flow pattern and thereby reduce the effectiveness of the water stream's ability to protect the hazard.

13. With regard to the question in 5.C., above, while the code does not specifically address the proposed described arrangement, it is described by the petitioner as without limitation.

14. Although the code does not require additional fire sprinkler protection for non-fixed hazards of less than 4 feet in width, to permit the unlimited use of such non-fixed hazards would certainly impact the system's ability to control an unplanned fire.

15. Depending on the occupancy classification, it may also be prudent to increase the level of protection required by the ceiling system to compensate for the occupant's arrangements.¹

WHEREFORE, SPECIFICALLY IN RESPONSE TO THE QUESTIONS PRESENTED, IT IS THE POSITION OF THE STATE FIRE MARSHAL OF THE STATE OF FLORIDA THAT THE RESPONSES TO THE ABOVE QUESTIONS ARE:

21. Question 5.A. Is it the intent of NFPA 13 that floor mounted equipment tables and their overhead support structures in excess of 4 feet in width and heights which would not be less than 18 inches from the ceiling be provided with additional sprinkler protection within their assembly?

Response to Question 5.A.: No, not if the tables are movable and the heights are not less than 18 inches from the ceiling; however, care should be taken to insure that the sprinklers are not unduly hindered in providing coverage to the room.

22. Question 5.B. If sprinkler protection is desired on the table top itself, will providing an open grate top surface (such as open wire shelving) suffice to allow water from above to penetrate through, and if so, how much equipment or dust shielding if any would be permitted on the shelving?

23. Response to Question 5.B.: No, the open grating will interfere with the flow pattern.

¹ The NFPA committees have recognized that there are arrangements where protection of certain transient items may be gained through greater density applications and through using higher levels of occupancy protection. An excellent example of that is a movie filming stage or studio in that filming sets are removed and replaced for each new project without extending protection into the sets themselves. Engineers with experience in the design of fire protection systems could be employed to design a system to address such hazards, possibly by the over design of the flow rates and pressures. The absence of the occupancy type from the petition must be noted, since that will also affect what is permissible under the conditions described in paragraph 5.C. The occupancy type will provide insight into the potential for combustibles to be stored under such obstructions. In addition, the use of tables of less than four feet wide would bring them into the exceptions indicated in the codes.

24. Question 5.C. If the setup and racking above the table top were able to be restricted to less than 4 feet in width and maintained at least 18 inches below the level of sprinklers in a room, could additional coverage be omitted regardless of overall length or location within the room relative to overhead ceiling sprinklers?

25. Response to Question 5.C.: No, because the question contains the words “regardless of overall length,” which is without limitation. Under specific conditions, the authority having jurisdiction may approve omission if the tables are within certain specific parameters.

NOTICE OF RIGHTS

Any party to these proceedings adversely affected by this Declaratory Statement is entitled to seek review of this Declaratory Statement pursuant to Section 120.565, Florida Statutes, and rule 9.110, Florida Rules of Appellate Procedure, because pursuant to Section 120.565, Florida Statutes, a Declaratory Statement constitutes final agency action and is therefore subject to judicial review pursuant to Section 120.68, Florida Statutes. Review proceedings must be instituted by filing a petition or notice of appeal with the General Counsel, acting as the agency clerk, at 612 Larson Building, Tallahassee, Florida, and a copy of the same with the appropriate district court of appeal, within thirty days of rendition of this Declaratory Statement.

ENTERED at Tallahassee, Leon County, Florida, this ____ day of _____, 2003.

Karen Chandler
Deputy Chief Financial Officer

Copies furnished to:

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