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To

The China WM code committee and China MOHURD

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Hamburg, 7th June 2022

"Technical Specifications for Water Mist Fire Extinguishing Systems" GB50898-2013

Dear Madams, dear Sirs,

the intention of the International Water Mist Association (IWMA) is to provide a forum for experts, manufacturers, users and fire professionals active in the field of water mist fire suppression. IWMA takes great interest in the development of the fire protection industry in China and specifically the current revision of "Technical Specifications for Water Mist Fire Extinguishing Systems" GB50898-2013.

IWMA as an association of industry actors and experts, would like to respectfully bring to your attention the consensus opinion of all IWMA member companies regarding some provisions in the GB50898-2013 standard. These provisions in question are detailed below.

Essentially:

1. The limitations detailed below do not provide a real increase in safety or system reliability.
2. There are no limitations of this type in any international standards for water mist systems or conventional sprinklers.
3. There are no limitations of this type in Chinese standard for conventional sprinkler: GB50084 Code of design for sprinkler systems.

It is therefore the view of IWMA that these provisions unnecessarily limit the use of water mist technology and thereby limit the fire protection options customers and professionals have at

their disposal in China. IWMA would respectfully ask the committee to consider removing these limitations from the next revision of the standard.

1. **Limits on the number of nozzles in a closed system per pump set（3.4.3）**

Current code requirements	Revised Draft for Comment
3.4.3 The dimension area of the closed system should not be less than 140m2. The number of nozzles in each pump set should not exceed 100.	3.4.3 The dimension area of the closed system should not be less than 140m2. The number of nozzles controlled by one zone control valve of the closed system should not exceed 100, and the number of nozzles per pump set should not exceed 800. The maximum protection area of each layer of nozzles attached to each water distribution vertical pipe should not be greater than 3000 m2.

Rationales for modification and international standards:

No international water mist design and installation standards like VdS 3188, EN 14972-1, and NFPA 750 limit the number of sprinklers for a pump set. Pumps are always dimensioned for a limited, predefined design area or number of sprinklers regardless of the full system size: Be it 100 sprinklers or 6000 sprinklers, the pump set is the same for the same type of hazard. Redundant pumps and other enhanced performance requirements are addressed separately, and they are case specific.

Size limitations in other standards are related to areas or numbers of sprinklers behind a single section or zone valve or riser. For example, VdS 3188 allows a maximum of 9000 m^2 (1000

sprinklers at 3 m spacing) behind a single section valve in typical low hazard applications and NFPA 750 sets the area limitation to 4831 m^2 for one riser.

We propose to unify the China code with other international standards and remove the system size per pump unit limitations.

2. The limitation of the number of protection areas/zones per the pump set of the total flooding open-type system（3.4.5）

Current code requirements	Revised Draft for Comment
3.4.5 The number of total flooding areas shall not be more than 3, for an open system	3.4.5 For open systems with total flooding applications, the number of areas for the pump system should not be more than 8 and the number of areas for the cylinder system should not be more than 3. The volume of a single protection area should not exceed 3000 m3 for the pump system and 260 m3 for the cylinder system. When the maximum volume of a single protection area is exceeded, the protection should be divided into multiple zones not larger than the above requirements for protection, and **the zones should be included in the number of protection areas**

Rationales for modification and International standards:

No international water mist design and installation standards like VdS 3188, EN 14972-1, and NFPA 750 limit the number of total flooding zones for a pump set. Pumps are always dimensioned for the single largest zone or multiple zones if more zones can be involved in the same fire. Redundant pumps and other enhanced performance requirements are addressed separately, and they are case specific.

We propose to unify the China code with other international standards and remove the system size per pump unit limitations.

Please consider the above points from the international water mist community when updating the China water mist code.

On behalf of International Water Mist Association

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