

West Metro Fire Protection District Life Safety Division

Technical Bulletin

Subject:	CPVC Sprinkler pipe material compatibility		
Code/Standard:	2015/18/21 IFC, NFPA 13, 13R, 13D	Bulletin No:	2022-001
Bulletin Tyne	☐ Fire Code Interpretation	Effective Date:	7/01/2022
Bulletin Type:		Approved By:	Brooks

Scope/Purpose:

The manufacturers of CPVC piping used in fire sprinkler systems have determined there is a significant potential for failure when CPVC sprinkler pipe comes in contact with certain incompatible materials. The experience of the West Metro Fire Protection District is that monitoring and inspections, or reliance on the various trades to ensure compliance, are not sufficient given the dynamic nature and scheduling pressures of the contemporary construction site. In order to manage this incompatibility potential, the fire district provides the following approved management options.

Requirement(s):

Prior to installation, the general contractor, in conjunction with the fire sprinkler system installer, shall develop a plan that ensures CPVC sprinkler pipe is not exposed to incompatible materials. The general contractor in conjunction with the installing sprinkler contractor shall propose, for approval by the fire inspector, option(s) to be employed on the job-site to address the incompatibility concerns. Options, or a combination thereof, that may be proposed and approved:

- 1) Encase the CPVC sprinkler pipe in a compatible material approved by the CPVC manufacturer. This may include a wrap of an approved material, pipe insulation, etc. Manufacturer documentation of approval shall be maintained on the construction site and available for review.
- Encase, enclose, or otherwise physically separate all other materials and products from the CPVC pipe. This may include raceways, baffles, chases, rigid conduit, etc.
- 3) Consider steel pipe as an alternative to CPVC to eliminate the need to separate materials and products.
- 4) Contract an APPROVED 3rd party inspector that will inspect, document, and certify that the CPVC pipe was free from all contact with incompatible or potentially incompatible materials. This inspection shall occur at the time that all materials, products, and installations have been completed in the vicinity of the CPVC pipe and at the time the enclosure (ceiling, walls, etc) are being installed. The cost for the 3rd party inspector serving this role shall not be the responsibility of the Fire District. Reports from the 3rd Party inspection shall be maintained on site and available.
- 5) Complete a 'CPVC Fire Sprinkler Pipe Compatibility Statement' prior to each rough inspection and just prior to ceiling installation as well as any other installation, including wall covering, that will conceal the CPVC. (SEE ATTACHED FORM)

Reference(s):

<u>Lubrizol Compatibility Program Link</u> Spears Compatibility Program Link

Attachments:

CPVC Fire Sprinkler Pipe Compatibility Statement

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West Metro Fire Protection District Life Safety Division

CPVC Sprinkler Pipe Compatibility Statement

Project Address:			
Project Name:			Permit No.:
Inspection	☐ Rough Inspection ☐ Entire E	Building, or Area:	Date:
Туре:	☐ Pre-enclosure ☐ Entire Build	ding, or Area:	Reviewed By:
when CPVC sprinklemanage this incomp	er pipe comes in contact with cert patibility potential, the West Metro	ain incompatible materials, even f	re is a significant potential for failure for short periods of time. In order to requires that proactive steps are mized or eliminated.
develop a plan that conjunction with the employed on the jok management of CP	ensures CPVC sprinkler pipe is n installing sprinkler contractor shapped o-site to address incompatibility of VC compatibility. This form shall		ials. The general contractor in FPD fire inspector, option(s) to be an approved method to assist in the ler rough inspection and prior to
sprinkler pipe, is available on Furthermore, I a any and every in the compatibilisteinspection fee	then I attest that compatibility site which demonstrates the acknowledge that, upon inspensions instance where our installation	documentation provided by the product or material is continuously a West Metro Fire Properties in contact with the CPVC	nstallations do touch the CPVC the sprinkler pipe manufacturer ompatible with the CPVC pipe. rotection District Fire inspector, sprinkler system in violation of
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