U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

July 26, 2022

Mr. Blake Shugarman
UL LLC
333 Pfingsten Road
Northbrook, IL 60062

Reference No. 21-0069

Dear Mr. Shugarman:

This letter is in response to your June 30, 2021, email and subsequent phone conversations with a member of my staff requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to fire extinguisher specifications. Specifically, you ask whether a plastic pipe—with fitting assemblies that have fusion or mechanical joints—can be used as a non-specification cylinder in compliance with the requirements of § 173.309(c). The product in question is a plastic "pipe" or tube that can be of varying length and is charged with a fire suppressant to 16 bar (approximately 232 psi) which will rupture at high temperatures to expel the suppressant.

The HMR allow for the use of non-specification cylinders to be shipped as fire extinguishers—including fire extinguishers for installation as part of a fire suppression system—provided they comply with all the applicable requirements of § 173.309(c)(1)-(6). Based on the information you provided in your letter, it is the opinion of this Office that because the device in question is designed to rupture when exposed to fire, it is not considered a pressure vessel and therefore cannot be shipped under § 173.309(c). However, you may consider applying for regulatory relief that authorizes your product as an alternative packaging under the terms and conditions of a special permit. Special permits are granted on a case-by-case basis and the application procedures are specified in 49 CFR 107.705. The Pipeline and Hazardous Materials Safety Administration's Approvals and Permits Division may be reached at (202) 366-4535.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division