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Legislative District 10
Baltimore County

Education, Energy, and the
Environment Committee
Energy Subcommittee

Chair, Joint Electric Universal
Service Program Workgroup



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TESTIMONY IN SUPPORT OF SB586
Public Safety – Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems –
Requirements and Prohibitions

Education, Energy and the Environment Committee
February 13, 2024

Chair Feldman, Vice-Chair Kagan and Members of the Committee,

Thank you for the opportunity to testify before you on SB586: Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions. The purpose of this bill is to prohibit the distribution, sale or transfer of corrugated stainless steel tubing that does not meet the LC 1027 testing criteria for the ANSI LC1 Standard as described by the International Code Council in The International Fuel Gas Code.

Corrugated Stainless Steel Tubing (CSST) is a flexible pipe that provides natural gas and propane in many homes and businesses. While this tubing is easy to install, it has many risks regarding its integrity under high amounts of electric current. For example, if a house were struck by lightning, the current from the lightning could create perforation in the tubing and cause a gas leak and/or fire. What makes a CSST-related fire uniquely destructive is that it converts the tubing into a flamethrower, that is hidden within walls, floors and ceilings. The resulting fire cannot easily be extinguished, thus putting residents and firefighters in immense danger.

Unfortunately, the risks posed by CSST-fires have already brought harm to our communities in Maryland. Two firefighters, Frederick County Battalion Chief Josh Laird and Howard County Department of Fire and Rescue Services Lt. Nathan Flynn, died in the line-of-duty responding to CSST-related house fires, triggered by a lightning strike.

Before 2022, it was legal to sell CSST in Maryland that had no protections against lightning threats, but the Flynn and Laird Act prohibited the sale of non-arc-resistant jacketed CSST. Arc-resistant CSST has a protective jacket that prevents electrical arcs from forming on the tube which causes perforations that ignites the gas inside. That bill was an immense step forward in reducing the likelihood of fires and deaths related to CSST malfunctions. However, even arc-resistant CSST has a fatal flaw. Its jacket is not the most resistant CSST option for protecting against a lightning strike.

When arc-resistant CSST was first developed, the International Code Council Evaluation Service tested the arc-resistant CSST jacket with 4.5 coulombs of electric current, thus yielding the testing criteria called “LC-1024”. This standard is sufficient at providing some protection against lightning threats. Currently, a lightning strike is between 20-28 coulombs of current, which means that most arc resistant CSST, for sale in Maryland, cannot withstand this charge. To resolve this, the International Code Council also developed the “LC-1027” testing criteria that subjects arc-resistant CSST jackets to 36 coulombs of current. This kind of CSST is stronger and safer than all previous iterations and ensures that a CSST-related fire is less likely to happen during a lightning strike or household electrical system fault.

SB586 will ensure that all CSST sold in Maryland will be able to better withstand threats from lightning strikes. It is time to finish the work we started in 2022 and ensure that Maryland firefighters are safe in the line of duty while protecting our constituents to the best of their ability.

For these reasons I am requesting a favorable report on SB586.

With kindest regards,

A handwritten signature in cursive script that reads "Benjamin T. Brooks".

Benjamin Brooks