

SB0175 CSST Support Letter.pdf

Uploaded by: Gordon Wallace

Position: FAV



METROPOLITAN FIRE CHIEFS COUNCIL OF MARYLAND

SB0175 – Public Safety – Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems – Requirements and Prohibitions

Date: February 4, 2025 (hearing date 02/06/2025)

Committee: Education, Energy and the Environment

Position: Favorable

Written Testimony: Submitted by Deputy Chief Gordon Wallace, Legislative Subcommittee Representative of the Metropolitan Fire Chiefs Council of Maryland

The Metropolitan Fire Chiefs Council of Maryland supports SB0175 - Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions. This legislation increases safety standards for corrugated stainless steel tubing (CSST) and prohibits the sale, transfer, or distribution of CSST that does not meet the safety requirements.

CSST is a product used to carry gas (propane and natural gas) in homes and commercial buildings and is prone to failure due to lightning strikes that can result in fires and explosions. It is not uncommon for CSST gas lines to be run in concealed spaces of a structure, therefore making the detection of a problem difficult and often delayed. The malfunctioning of this product was responsible for the two line of duty deaths of Frederick County Battalion Chief Josh Laird in 2021 and Howard County Lieutenant Nathan Flynn in 2018. HB1052 (the Flynn Laird Act) passed in 2022 prohibited the use of non-arc resistant CSST, but this standard alone is not enough to prevent malfunctions of the product. In addition to these tragedies, the Fire Service in Maryland continues to respond to fires and explosions because of the failure of CSST systems and most are direct results of lightning induced arcing and subsequent fugitive gas escape. These incidents result in millions of dollars of property loss and put the residents and first responders of Maryland at great risk.

Time and experience have demonstrated that we still have work to do to protect our citizens from the dangers of CSST. SB0175 identifies CSST constructed to withstand 36 coulombs of electrical arcing charge as the new standard in Maryland. CSST that is built to withstand 36 coulombs can take a larger electrical insult than other CSST products on the market. Additionally, this bill makes the sale, offer for sale, transfer or distribution of non-compliant CSST illegal and violators are subject up to a \$1,000 civil penalty.

This proposed legislation seeks to improve the safety standard for CSST products. SB0175 is critical legislation that if enacted will make the residents, visitors and first responders in Maryland safer. The Metropolitan Fire Chiefs Council of Maryland the committee for a FAVORABLE report for SB0175.

HB222--~1.PDF

Uploaded by: irene barnes

Position: FAV

COUNTY COUNCIL OF DORCHESTER COUNTY
COUNTY OFFICE BUILDING
501 Court Lane, P.O. Box 26
Cambridge, Maryland 21613
(410) 228-1700

GEORGE L. PFEFFER, JR., PRESIDENT

MIKE DETMER, VICE PRESIDENT

ROB KRAMER, JR.

WILLIAM V. NICHOLS

RICKY C. TRAVERS



JERRY JONES
COUNTY MANAGER

MACLEOD LAW GROUP LLC
COUNTY ATTORNEY

January 27, 2025

The Honorable Marc Korman, Delegate
Environment and Transportation Committee
251 Taylor House Office Building
6 Bladen Street
Annapolis, MD 21401

RE: Letter of Support – HB222 Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

Dear Chairman Korman and Committee Members:

On behalf of the Dorchester County Council, I respectfully offer its support for House Bill 222 entitled “Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions” for the purpose of prohibiting the sale, offer for sale, transfer, or distribution of corrugated stainless steel tubing that does not meet certain qualifications; requiring certain tubing used in the construction of fuel gas piping systems in certain buildings to meet certain qualifications; and generally relating to corrugated stainless steel tubing.

Corrugated stainless steel tubing (CSST) is commonly used to transport gas in homes and commercial buildings, but it is vulnerable to failure from lightning strikes, which can lead to fires and explosions. House Bill 222 aims to enhance safety standards for CSST by banning the sale, transfer, or distribution of CSST that does not meet these improved safety criteria. The failure of this product has been linked to the tragic deaths of Frederick County Battalion Chief Josh Laird and Howard County Lieutenant Nathan Flynn. While legislation passed in 2022 prohibited non-arc-resistant CSST, this alone does not fully address the risk of product malfunctions. This new legislation will further prohibit the sale, transfer, or distribution of CSST that cannot withstand 36 coulombs of electrical arcing. This updated standard will ensure that CSST can endure lightning strikes without failing, ultimately protecting both first responders and residents from the threat of CSST-related fires. We urge you to look favorably upon this bill.

Thank you for your time and consideration of this letter of support. If you have any questions, please contact the Council’s Office at (410) 228-1700

Sincerely,

A handwritten signature in blue ink that reads 'George L. Pfeffer, Jr.' with a stylized flourish at the end.

George L. Pfeffer, Jr.
President

cc: The Honorable Johnny Mautz, Senator
The Honorable Christopher T. Adams, Delegate
The Honorable Sheree Sample-Hughes, Delegate
The Honorable Tom Hutchinson, Delegate

COUNTY COUNCIL OF DORCHESTER COUNTY
COUNTY OFFICE BUILDING
501 Court Lane, P.O. Box 26
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GEORGE L. PFEFFER, JR., PRESIDENT

MIKE DETMER, VICE PRESIDENT

ROB KRAMER, JR.

WILLIAM V. NICHOLS

RICKY C. TRAVERS



JERRY JONES
COUNTY MANAGER

MACLEOD LAW GROUP LLC
COUNTY ATTORNEY

January 27, 2025

The Honorable Brian Feldman, Senator
Education, Energy, and the Environment Committee
2 West Miller Senate Office Building
11 Bladen Street
Annapolis, MD 21401

RE: Letter of Support – SB175 Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

Dear Chairman Feldman and Committee Members:

On behalf of the Dorchester County Council, I respectfully offer its support for Senate Bill 175 entitled “Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions” for the purpose of prohibiting the sale, offer for sale, transfer, or distribution of corrugated stainless steel tubing that does not meet certain qualifications; requiring certain tubing used in the construction of fuel gas piping systems in certain buildings to meet certain qualifications; and generally relating to corrugated stainless steel tubing.

Corrugated stainless steel tubing (CSST) is commonly used to transport gas in homes and commercial buildings, but it is vulnerable to failure from lightning strikes, which can lead to fires and explosions. Senate Bill 175 aims to enhance safety standards for CSST by banning the sale, transfer, or distribution of CSST that does not meet these improved safety criteria. The failure of this product has been linked to the tragic deaths of Frederick County Battalion Chief Josh Laird and Howard County Lieutenant Nathan Flynn. While legislation passed in 2022 prohibited non-arc-resistant CSST, this alone does not fully address the risk of product malfunctions. This new legislation will further prohibit the sale, transfer, or distribution of CSST that cannot withstand 36 coulombs of electrical arcing. This updated standard will ensure that CSST can endure lightning strikes without failing, ultimately protecting both first responders and residents from the threat of CSST-related fires. We urge you to look favorably upon this bill.

Thank you for your time and consideration of this letter of support. If you have any questions, please contact the Council’s Office at (410) 228-1700

Sincerely,

A handwritten signature in blue ink that reads 'George L. Pfeffer, Jr.' with a stylized flourish at the end.

George L. Pfeffer, Jr.
President

cc: The Honorable Johnny Mautz, Senator
The Honorable Christopher T. Adams, Delegate
The Honorable Sheree Sample-Hughes, Delegate
The Honorable Tom Hutchinson, Delegate

Senate Bill 175 (2025) PFFMD Testimony - J. Buddl

Uploaded by: Jeffrey Buddle

Position: FAV



February 6, 2025

Senator Brian Feldman, Chair
Senate Education, Energy and the Environment Committee
2 West, Miller Senate Office Building
Annapolis, Maryland 21401

Position: FAVORABLE

Re: SB175 – Corrugated Stainless-Steel Tubing for Fuel Gas Piping Systems

The Professional Fire Fighters of Maryland represents more than 10,000 active and retired professional fire fighters and emergency medical services personnel who proudly serve the citizens of the State of Maryland.

We strongly support the enhancement of requirements and prohibitions for corrugated stainless-steel tubing (CSST) for fuel gas piping systems. The current standards for CSST are outdated and in need of revisions. These outdated standards have allowed substandard CSST to be installed that were contributing factors in two fire fighter line of duty deaths: Nathan Flynn in Howard County and Josh Laird in Frederick County.

The following link provides more information on the lessons learned from both fires that were caused by lightning-induced arc failure of corrugated stainless-steel tubing (CSST).

<https://www.usfa.fema.gov/blog/atf-investigation-report-on-lessons-learned-from-2-lodd/>

On behalf of the members of Professional Fire Fighters of Maryland, we strongly encourage a favorable report on Senate Bill 175.

Submitted respectfully,

Jeffrey Buddle, President
Professional Fire Fighters of Maryland

The membership of the Professional Fire Fighters of Maryland includes 25 IAFF local affiliates from the following jurisdictions:

Federal: Aberdeen Proving Grounds, Fort George G. Meade, National Capital Federal Fire Fighters

State: Baltimore / Washington International Airport

Local: Annapolis City, Allegany County, Anne Arundel County, Baltimore City (2 affiliates), Baltimore County, Carroll County, Cecil County, Charles County, Cumberland City, Frederick County, Garrett County, Hagerstown, Howard County, Montgomery County, Ocean City, Prince Georges County, Queen Annes County, Salisbury, Talbot County, Worchester County

SB 0175 FAV FCG OCE JF LS25.pdf

Uploaded by: Jessica Fitzwater

Position: FAV



FREDERICK COUNTY GOVERNMENT
OFFICE OF THE COUNTY EXECUTIVE

Jessica Fitzwater
County Executive

SB 175 – Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

DATE: February 6, 2025
COMMITTEE: Senate Education, Energy, and the Environment Committee
POSITION: Favorable
FROM: The Office of Frederick County Executive Jessica Fitzwater

As the County Executive of Frederick County, I urge the committee to give **SB 175 – Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions** a favorable report. This bill will improve building safety and protect Maryland residents and first responders by requiring that all Corrugated Stainless-Steel Tubing (CSST) be able to withstand 36 Coulombs.


Since 2018, the state of Maryland has experienced three fatalities (two firefighters/one civilian) because of fires caused by lightning-induced failure of CSST. The State has also experienced several non-fatal, though extremely destructive, fires that have been linked to malfunctioning CSST. This issue became deeply personal to Frederick County when a CSST-related fire in 2021 resulted in the line-of-duty death of Frederick County Battalion Chief Josh Laird. While legislation was passed in 2022 to ban non-arc-resistant CSST, further measures are needed to protect our firefighters, first responders, and residents.

The current requirement for CSST to be arc-resistant only ensures that CSST can withstand 4.5 coulombs, per the national standard CSA/ANSI LC-1, which can be met by the LC1024 listing criteria. Unfortunately, this level of protection is insufficient when the average lightning strike in the US is approximately 15-28 Coulombs and can be much higher. This means that even arc-resistant and/or properly installed CSST is highly vulnerable to malfunction, and higher safety standards are needed.

This bill, as amended, does not focus on a specific listing criteria, but instead sets a floor for the level of electrical arcing charge that the product must be able to withstand. This amended language ensures that all manufacturers have the opportunity to create safer products using these clear metrics.

As local and state governments, we have a responsibility to our constituents, including our first responders, to adopt laws, regulations, and building codes that ensure the safety of our communities. Adopting stronger safety standards for the energy systems in our buildings is one simple way we can uphold that responsibility.

Thank you for your consideration of SB 175. I urge you to advance this bill with a favorable report.


Jessica Fitzwater, County Executive
Frederick County, MD

Letter for SB175.pdf

Uploaded by: Mike McKay

Position: FAV

MIKE MCKAY
Legislative District 1
Garrett, Allegany, and Washington Counties



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James Senate Office Building
11 Bladen Street, Room 416
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410-841-3565 • 301-858-3565
800-492-7122 Ext. 3565
Mike.McKay@senate.state.md.us

Judicial Proceedings Committee
Executive Nominations Committee

THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

Cumberland Office
100N Mechanic Street
Cumberland, Maryland 21502
240-362-7040

Joint Committees
Administrative, Executive,
and Legislative Review
Children, Youth, and Families
Program Open Space and Agricultural
Land Preservation

Williamsport Office
2N Conococheque Street
Williamsport Town Hall
Williamsport, Maryland

January 24, 2025

RE: Fire/EMS Coalition Support for SB175

Dear Chairman Feldman, Vice Chair Kagan, and Members of the Committee,

The Fire/EMS Coalition would like to express their support for Senate Bill 175:
Public Safety – Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems – Requirements and Prohibitions. The bill will establish the prohibition of the sale, offer for sale, transfer, or distribution of corrugated stainless steel tubing if it does not meet a certain International Code Council standard. This bill will require tubing used in the construction of fuel gas piping systems in buildings to meet a certain standard. This bill also provided for civil penalties of up to \$1,000 for a violation of the Act.

The Fire/EMS Coalition supports Senate Bill 175 as it will be beneficial to public safety in Maryland as the bill would ensure that the tubing in all buildings is up to par to prevent health and safety issues. Stainless steel tubing that does not meet standard is unsuitable to be used as gas pipes and can cause serious harm to the safety of the public. The Coalition supports this bill for the safety of the public of Maryland.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike McKay".

Senator Mike McKay
Representing the Appalachia Region of Maryland
Serving Garrett, Allegany, and Washington Counties

Voting Organizations:

Maryland Fire Chief's Association (MFCA)
Maryland State Firefighter's Association (MSFA)
State Fire Marshal (OSFM)
Maryland Fire Rescue Institute (MFRI)
Maryland Institute for Emergency Medical Services System (MIEMMS)

**Metro Fire Chief's Association
Professional Firefighters of Maryland**

Our Mission Statement

The Maryland Fire/EMS Coalition unites Republicans and Democrats in support of fire/emergency services legislation that benefit all first responders. Becoming a member does not require taking positions on legislation; rather Coalition members are asked to offer support in a way that best benefits fire/emergency services in their respective Legislative Districts.

Testimony in support of SB0175 - Public Safety - C

Uploaded by: Richard KAP Kaplowitz

Position: FAV

SB0175_RichardKaplowitz_FAV

02/06/2025

Richard Keith Kaplowitz
Frederick, MD 21703-7134

TESTIMONY ON SB#0175 - POSITION: FAVORABLE
Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems -
Requirements and Prohibitions

TO: Chair Feldman, Vice Chair Kagan, and members of the Education, Energy and the Environment Committee

FROM: Richard Keith Kaplowitz

My name is Richard Kaplowitz. I am a resident of District 3, Frederick County. I am submitting this testimony in support of/ SB#/0175, Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

This bill is a priority for the County Executive and County Council of Frederick County.

Frederick County Battalion Chief Joshua Laird, 46, died Aug. 11, 2021, from injuries he sustained battling a two-alarm house fire on Ball Road in Ijamsville, Maryland; a fire in which a lightning strike induced failure of a CSST. The Chief's widow, Sara Laird, testified in favor of the bill last year but it failed to advance out of the committee.

CSST has been shown to malfunction and caused, in 2016, the International Code Council, in partnership with the Fire Service Membership Council and the National Association of State Fire Marshals to unanimously endorse ICC LC1027. This LC1027 standard is considered to be a way to meaningfully improve safety in preventing these CSST failures. This bill, as drafted for 2025, considers and reflects feedback from the 2024 legislative session but maintains the focus on increasing the safe standards of this product. We owe it to our first responders to protect them by decreasing the fire hazards they face fighting fires in which CSST is a contributing factor. In honor of the memory of Chief Laird we should and must pass this bill this year.

I respectfully urge this committee to return a favorable report on SB0175.

SB175 testimony.pdf

Uploaded by: Robert Phillips

Position: FAV

MARYLAND STATE FIREFIGHTERS ASSOCIATION

*Representing the Volunteer Fire, Rescue and Emergency Medical Services Personnel
-a 501(c)3 Organization*



Legislative Committee

17 State Circle
Annapolis MD, 21401
Chair: Robert Phillips
Email: rfcchief48@gmail.com
Cell: 443-205-5030
Office: 410-974-2222

SB 175: Public Safety - Corrugated Stainless-Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

My name is Chief Robert Phillips, and I am the Legislative Committee Chair for the Maryland State Firefighters Association (MSFA)

I wish to present testimony in favor of **Senate Bill 222: Public Safety - Corrugated Stainless-Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions**

The state of Maryland experienced the death of two first responders in building fires that had failures of corrugated stainless-steel tubing (CSST). The failures were attributed to high electrical discharge arcing causing a perforation of the tubing. The perforation allowed gas to escape the tubing and add fuel to the fire. In 2022 the state adopted legislation that required the use of “arc resistant” CSST to provide better protection to the gas system, by using better insulation available at the time. The 2022 bill did not address the sale of “non-arc resistant” CSST which is still on sale today. Since that time and through further testing it has been found that the electrical discharge the present insulation provides is lower than the voltages that can be encountered during a lightning strike in or near a building. There is a newer national standard LC1027, which tests to a higher coulomb discharge and better protects the CSST against electrical discharge perforation. This bill will accomplish two things, 1) requires all CSST being sold and used to meet the newer standard (LC1027) of insulation/protection, and 2) restrict the sale of non-compliant CSST materials in the state.

The MSFA asks that you return a FAVORABLE vote on SB175.

Thank you and I would be glad to answer any questions you might have.

Senate Laird (3).pdf

Uploaded by: Sara Laird

Position: FAV

February 4, 2025

Senator Brian J. Feldman, Chair
Senator Cheryl C. Kagan, Vice Chair
Education, Energy, and Environment Committee Maryland General Assembly
11 Bladen St.
Miller Senate Office Building
Annapolis, Maryland 21401

Re: SB0175 - Public Safety - Corrugated Stainless Steel Tubing for Gas Piping Systems
Requirements and Prohibitions

Dear Senator Feldman and Senator Kagan,

My name is Sara Laird, and I am the widow of Frederick County Battalion Chief Joshua Laird. My husband was killed in the line of duty on August 11, 2021, while fighting a fire in Ijamsville, Maryland. I know most of what I have to say you have heard before, as this is the third time I am returning to Annapolis in an effort to pass this life-saving legislation. The cause of the fire that killed my husband was determined and documented in the after-action report to be a failure of the Corrugated Stainless Steel Tubing (CSST) under lightning strike conditions. My husband served the citizens of Maryland for 21 years. He was also a loving father, husband, son, brother, fireman, and friend. His death has left an enormous void that will never be filled, nor will our grief ever be gone.

I am writing to you today in support of SB0175. Since the day I learned of the cause of my husband's fire, I have been continually educating myself and researching CSST. There are no words to adequately describe my feelings when I learned that not only are the dangers of CSST well-researched and documented but they have also been known by the industry since the mid-2000s, if not before. Even more distressing was the fact that an almost identical fire was responsible for the death of Lt. Nathan Flynn of Howard County three years before my husband's death and the death of a Frederick County citizen.

The proposed bill will require CSST products sold or installed in Maryland to meet safer testing criteria. It also provides the ability to enforce the legislation by establishing a fine for violating the sale or use of products that do not satisfy the testing criteria. In 2016, the National Association of State Fire Marshalls publicly called to raise the performance standard by requiring a more vigorous testing protocol (ICC-ES PMG LC1027). Massachusetts Institute of Technology (MIT) has also conducted significant research on CSST, which supports increasing performance standards to meet the testing criteria of 36 Coulombs. Unfortunately, the industry has been slow to adopt these recommendations, prioritizing profits over safety.

Based on my research, I have documented 30 CSST fires in Maryland over the past several years; however, this number is certainly not representative of the actual number of CSST fires. Currently, there is no system to track these fires, and absent a fatality, there is often no investigation that would identify and document the connection to CSST. The danger of CSST fires grows by the year as we continue to experience more extreme weather. Based on research conducted by the University of California, Berkeley, for every 1 degree Celsius (1.8 degrees Fahrenheit) rise in the global average temperature, lightning strikes will increase by about 12%. Dr. David Rompas, a researcher at UC Berkeley, stated, "For every two lightning strikes you had at the beginning of the century, we will have three at the end of the century." The current testing criteria only ensure that CSST used in Maryland can withstand up to 1000 amps or 4.5 Coulombs but research from the Lightning Protection Institute shows that the average lightning strike ranges from 24 to 28 Coulombs. Combining this with the continued increase of population density, the question is not if there will be another CSST fire and fatality, but when. Regardless of what the industry might say or how they might try to confuse the conversation, science provides unbiased truth.

Had the testing criteria of 36 Coulombs been the law in Maryland, my husband would still be here. I would not be a widow, and my daughters would still have their father.

Just as the legislative session was ending last year there was another CSST fire in Mount Airy. When I spoke to the homeowner this fall, they were still not back in their home. However, no one was hurt; fortunately, the family was home, and the fire department arrived quickly, but this could have very easily had a different outcome. It is time to take action to protect the citizens of Maryland and firefighters. My husband was a dedicated public servant. Please do not let his death be in vain; my greatest hope is that his legacy will be to continue his service to Maryland by protecting others from the same fate.

Thank you for considering this legislation. I respectfully ask the Environment and Transportation Committee for a favorable report of SB0175.

Sincerely,

Sara Laird

Sara Laird
Widow of Battalion Chief Joshua Laird

SB0175-EEE_MACo_SUP.pdf

Uploaded by: Sarah Sample

Position: FAV



Senate Bill 175

Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

MACo Position: **SUPPORT**

To: Education, Energy, and the Environment
Committee

Date: February 6, 2025

From: Sarah Sample

The Maryland Association of Counties (MACo) **SUPPORTS** SB 175. This bill requires that corrugated stainless steel tubing (CSST) meet certain requirements in order to be sold, transferred, or distributed. Promoting standards for these materials can help promote safety and avoid some of the worst dangers threatening our first responders during active structure fires.

The Public Service Commission defines CSST as “a flexible, stainless steel piping system used to supply natural gas and propane in residential, commercial, and industrial structures.” Over the years, this type of tubing has become a cornerstone of the nation’s fossil fuel infrastructure and can be found in most buildings. In recent history, there have been several instances where structure fires have become more severe due to failures in the CSST tubing – including the tragic line-of-duty deaths of Frederick County firefighter Joshua Laird and Howard County firefighter Nathan Flynn.

SB 175 addresses these failures by requiring CSST to meet certain standards and enforcing those standards by establishing a civil penalty of up to \$1000 for noncompliance.

This bill helps safeguard the health and safety of our first responders and all residents in Maryland. Counties urge the Committee to issue a **FAVORABLE** report on SB 175.

SB0175 Written Testimony from Tom Coe 020425.pdf

Uploaded by: Tom Coe

Position: FAV



FREDERICK COUNTY GOVERNMENT

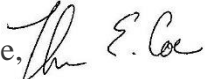
DIVISION OF FIRE & RESCUE SERVICES

Office of the Chief

Jessica Fitzwater
County Executive

Thomas E. Coe, Chief

SB0175 - Public Safety - Corrugated Stainless-Steel Tubing for Fuel Gas Piping Systems Requirements and Prohibitions

Written Testimony from: Chief Thomas E. Coe, 
Frederick County Division of Fire and Rescue Services

Position: Favorable

Committee: Education, Energy and the Environment

Date: February 4, 2025

The dangers of Corrugated Stainless-Steel Tubing (CSST) are not common knowledge to the general public. When high levels of electricity are introduced into a structure by a direct or indirect lightning strike CSST commonly fails when an arc is created with nearby metal objects. The ensuing gas fed fire has caused millions of dollars of property loss but more over those fires have cost lives.

In Frederick County alone we have experienced two fire fatalities within the last 7 years from lightning striking a structure that contained CSST that was not arc resistant. In 2018, a civilian died in a residential fire south of Urbana after lightning struck the residence, CSST failed, and the occupant was trapped by the ensuing fire.

Then on August 11, 2021, this issue hit close to home when Battalion Chief Josh Laird, a 22-year veteran of our organization, died in the line of duty fighting a residential fire in a home that had been struck by lightning and experienced a failure in the CSST.

In 2022, the Maryland Legislature took a step forward to protect both our citizens and first responders by passing The Flynn Laird Act. Time and experience have demonstrated that we still have work to do to protect our citizens from the dangers of CSST. SB0175 identifies CSST constructed to withstand 36 coulombs of electrical arcing charge as the new standard in Maryland. CSST that is built to withstand 36 coulombs can take a larger electrical insult than other models on the market. Additionally, this bill makes the sale, offer for sale, transfer or distribution of non-compliant CSST illegal and associates a \$1,000 civil penalty.

For the safety of all Marylanders as well as our firefighters who respond to these fires, I urge a **FAVORABLE** report for Senate Bill 0175.

BC8271C3-6E80-47F0-8D49-111080D98E25.pdf

Uploaded by: Ethan Simon

Position: FWA



SB0175/133423/1

AMENDMENTS
PREPARED
BY THE
DEPT. OF LEGISLATIVE
SERVICES

28 JAN 25
11:16:21

BY: Senator Lewis Young
(To be offered in the Education, Energy, and the Environment
Committee)

AMENDMENTS TO SENATE BILL 175
(First Reading File Bill)

AMENDMENT NO. 1

On page 1, in lines 5 and 7, in each instance, strike “certain qualifications” and substitute “a certain qualification”; in line 7, before “and”, insert “authorizing the governing body of a county or the Mayor and City Council of Baltimore to require a person who installs corrugated stainless steel tubing to provide certain notice to a certain entity;”.

AMENDMENT NO. 2

On page 2, strike beginning with the colon in line 1 down through “(2)” in line 5; strike beginning with “MEETS” in line 14 down through “OR” in line 16; after line 25, insert:

“(C) THE GOVERNING BODY OF A COUNTY OR THE MAYOR AND CITY COUNCIL OF BALTIMORE MAY REQUIRE A PERSON WHO INSTALLS CORRUGATED STAINLESS STEEL TUBING TO PROVIDE TO THE ENTITY THAT HAS AUTHORITY OVER LOCAL PERMITS AND INSPECTIONS:

(1) A LIST OF THE MATERIALS USED IN AN INSTALLATION; AND

(2) A MATERIAL CERTIFICATE DEMONSTRATING ALL CORRUGATED STAINLESS STEEL TUBING USED HAS BEEN PROVEN TO WITHSTAND AT LEAST 36 COULOMBS OF ELECTRICAL ARCING CHARGE.”;

and in line 26, strike “(C)” and substitute “(D)”.

SB0175 CSST Cover Letter (Written Testimony).pdf

Uploaded by: Ethan Simon

Position: FWA

KAREN LEWIS YOUNG
Legislative District 3
Frederick County

Budget and Taxation Committee



THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

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District Office
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The Honorable Brian Feldman
The Honorable Cheryl Kagan
Education, Energy, & Environment Committee
Miller Senate Office Building
11 Bladen Street
Annapolis, MD 21401

February 6th, 2025

SB0175 Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

Chair Feldman, Vice Chair Kagan, and honorable members of this committee,

Corrugated Stainless Steel Tubing (CSST) is a product that moves gas around homes and businesses throughout the country for the purposes of cooking and heating.

This tubing is easy to install but is prone to malfunctions that can cause gas leaks. When there is an electrical discharge, it can cause the gas to ignite. In 2022, we passed a bill that improved the tubing's safety by requiring that CSST sold in Maryland withstand 4.5 coulombs of electrical arcing charge. While the product sold in Maryland is now safer, it is still vulnerable to the most common source of electrical discharge, lightning strikes. Average lightning strikes are anywhere from 15-24 coulombs.

Since 2018, Maryland has experienced three fatalities –two firefighters and one civilian– because of lightning-induced failure of CSST. There have been more than thirty CSST-linked home fires in that same timeframe. What makes a CSST fire particularly dangerous is how quickly the tubing can transport the fire throughout the building, bypassing all other interior obstacles.

SB175 improves upon both the current Maryland standard and international standards by requiring CSST products sold here to be able to withstand 36 coulombs. At 36 coulombs, CSST products would be able to withstand over 90% of lightning strikes.

SB175 will save lives and protect homes. I urge a favorable report.

Sincerely,

A handwritten signature in blue ink that reads "Karen Lewis Young". The signature is written in a cursive, flowing style.

Senator Karen Lewis Young

SB 175 - Opposition Testimony - Ward Manufacturing

Uploaded by: Ashley Andrus

Position: UNF

OPPOSITION To Senate Bill 175

On behalf of Ward Manufacturing, the manufacturer of WardflexMAX corrugated stainless steel tubing (CSST), **we respectfully request an unfavorable report to SB 175.** As introduced, SB 175 proposes to mandate one manufacturer's proprietary product listing criteria (ICC ES PMG LC1027) in place of the national consensus standard (CSA ANSI LC 1:2023) for CSST.

The LC 1 standard dictates strict testing and performance requirements for arc-resistant CSST jackets that prove it will provide a high degree of resistance to electrical arcing caused by lightning. This is why the National Fuel Gas Code and the International Fuel Gas Code only recognize the use of CSST in accordance with the LC 1 standard. All brands of arc-resistant CSST made under the enhanced LC 1 requirements can meet the expected levels of electrical energy that actually occur within the piping system of a structure. **The millions of feet of arc-resistant CSST that have been installed in the US since 2007 have an exceptional safety record.**

If passed, SB 175 circumvents national consensus standards that are developed by the American National Standards Institute and similar organizations. Similar attempts to the one being made in Senate Bill 175 have been made in Oklahoma, Iowa, and Texas and they have all been rejected. Proposals to recognize LC 1027 in lieu of LC 1 have also been rejected by the International Fuel Gas Code and the International Residential Code.

PMG LC 1027 is not an accepted national consensus standard that was developed as part of a rigorous standards development process as defined by ANSI. It is a proprietary ICC listing criteria specifically developed for a single CSST manufacturer's patented design. The intention of listing criteria is to allow for evaluation of emerging products until they can be covered by an existing national standard or a new one is created.

Imposing the terms of SB 175 within the state of Maryland creates a number of issues. To our knowledge, all but one patented CSST product will be eliminated; thus, if passed SB 175 sets up an industry in Maryland for one manufacturer. Reliance on one manufacturer and its proprietary product will likely have an impact on supply and price for Maryland consumers. We proffer that the concerns from the proponents have already been mitigated with passage of House Bill 1052 (2022) that required only arc-resistant CSST in accordance with CSA ANSI LC 1 to be available for installation.

In conclusion, piping systems installed in Maryland should be specified by existing national consensus standards.

Respectfully submitted,

Ashley Andrus
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Sargeant-why standards matter-testimony.pdf

Uploaded by: Jonathan Sargeant

Position: UNF



Manufacturer of Flexible Metal Hose and Gas Piping Products

Why National Consensus Standards Matter

The principal concern with HB222 revolves around the issue of whether it matters that all equipment and piping systems installed within Maryland homes be referenced to a national consensus standard (recognized by the State Fuel Gas Code) be allowed based only on what is called listing criteria, or, even more troubling, be listed to an arbitrary criteria with no referenced standard at all. The issue involves different types of corrugated stainless steel tubing (CSST) used to distribute natural gas and propane within residential and commercial buildings. At issue is the basis for what constitutes an approved product/material (in compliance with the state building and fire codes) that have been determined to be safe, reliable and in the best interest of the public welfare.

Precedence and conventional wisdom in the development and maintenance of both model and state level building codes is to rely exclusively on national consensus standards which are developed through a rigorous public review process. Every piping product and/or building material referenced in the State Fuel Gas Code has a national consensus standard with no exceptions. The one and only national consensus standard for CSST is the ANSI/CSA LC-1 Standard which has been in place since 1990.

National consensus standards are developed by organizations that are certified by the American National Standards Institute (ANSI) or other similar sanctioning organization. All fuel gas appliance standards used in North America have been developed by the Canadian Standards Association or CSA Group which is a recognized standards development organization (SDO). These standards have rigorous protocols for the development and maintenance of the standards that are enforced through audits from the ANSI. The technical committees (TC) charged with the development and maintenance of these standards must be balanced (in terms of the various organizations that have voting members on the technical committee so that no one group has a voting monopoly). Proposals for revisions can be submitted by anyone and all proposals must be deliberated by the TC. All proposed revisions must be sent out for public review, and all received comments must be fully resolved before the revisions can be reviewed for approval. Approval has its own process which involves independent US and Canadian over-sight bodies that separately sanction (or reject) the revisions under consideration. There is also an appeal process for parties that believe the process and/or the technical decisions were erroneous. This process is continuous and ongoing, based on the best available knowledge at the time, which is why consensus standards are often referred to as living documents.

The use of a listing criteria is intended for those emerging products that are not currently covered by a national consensus standard. The biggest difference between a consensus standard and the listing criteria is the development process. The listing criteria can be developed by an organization other than an SDO. ICC Evaluation Services is such a non-SDO. The LC-1027 is such a listing criteria that was developed at the behest of a single CSST manufacturer specifically for their special arc-resistant CSST design without any other considerations. Furthermore, the ICC development

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process is not a public consensus process such as the one used for ANSI sanctioned standards, and without a balanced TC and with limited or no public input.

The intention of the listing criteria is to allow the testing and evaluation of emerging products until such time that they can be covered by an existing national standard or a new one created. Listing criteria are not meant to be long-lived in lieu of such national standards. Such has been the case with LC-1027 which has essentially been obsoleted because of the inclusion of arc-resistance testing requirements within the national consensus standard LC-1. The standards community, through the LC-1 TC, reviewed all options and performance requirements for arc-resistance (including those contained within LC-1027) when the LC-1 Standard was updated in 2014 to include general requirements for arc resistance. All arc-resistant CSST are now tested and certified based on the LC-1 Standard, thus making the LC-1027 listing criteria superfluous. It should be noted that the LC-1027 listing criteria is NOT included in the ICC International Fuel Gas Code as an alternative to LC-1.

Adopting ICC-ES LC-1027 (or the provisions contained in the LC-1027) in lieu of ANSI/CSA LC-1 would create a number of unintended consequences for the State of Maryland:

- It would create a state sanctioned monopoly for one patented product and one manufacturer of CSST as LC-1027 was developed specifically for just that unique product design and not for the generic variety of CSST and only one manufacturer certifies their arc resistant product to the 36 coulomb requirement in the LC-1027.
- It would eliminate three of the four arc-resistant CSST products currently offered for sale in the State of Maryland.
- Creating such a legal barrier to commerce is tantamount to a restraint of trade.
- Protection against direct lightning strikes can only be met by the installation of a certified lightning protection system. To date, the State of Maryland has not deemed such protection a necessity for Maryland homeowners.
- Requiring the inclusion of LC-1027 (or the provisions therein) into the State Fuel Gas Code would conflict with the accepted standard of care of adopting only national consensus standards. Furthermore, LC-1027 is not a complete standard and does not stand alone as a replacement for CSA LC-1.

In summary, this issue has already been litigated with the signing of HB 1052 in 2022 establishing the requirement for arc-resistant CSST in accordance with its national consensus standard ANSI/CSA LC-1. Adoption of LC-1027 in lieu of LC-1 will create numerous potential conflicts as well as unwarranted interference by the State of Maryland into flow of commerce. Additionally, adopting the provisions of LC-1027 in lieu of the document itself has the same negative impacts as direct adoption of LC-1027 as it is the only document that contains testing criteria for testing to 36 coulombs.

Respectfully submitted,

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SB 175_HB 222 LOO MCIES .pdf

Uploaded by: Sarah Peters

Position: UNF



Bill: SB 175/HB 222- Public Safety - Corrugated Stainless Steel Tubing for Fuel Gas Piping Systems - Requirements and Prohibitions

Position: OPPOSE

Dear Chair, Vice-Chair, and Members of the Committee:

The Maryland Coalition for Inclusive Energy Solutions (MCIES) a coalition of corporations, associations, and labor organizations advocating for the inclusivity of all energy types, including natural gas, renewable natural gas, hydrogen, propane, and nuclear power, write to express our opposition to SB 175/HB 222.

While we fully support efforts to enhance safety, this bill is founded on a flawed premise and presents significant concerns that we strongly encourage the General Assembly to consider.

It is our understanding that LC-1027 is not a national consensus standard. LC-1027 is a customized testing criterion created by a single manufacturer for its specific product and is not a recognized standard developed by any standards development organization. Contrary to the bill's language, LC-1027 is not referenced in the International Fuel and Gas Code or the Maryland Plumbing Code.

The LC-1027 criteria has also been reviewed and explicitly rejected by respected national organizations, including the National Fire Protection Association and The CSA Group, a leading standards-setting organization for North America.

Adoption of this bill would effectively establish a monopoly for one patented product. The LC-1027 standard was developed for a single, unique product and is not intended or suitable for industry-wide application. Restricting the sale and use of CSST to a single standard is likely to significantly increase costs for builders, contractors, and consumers.

For these reasons, we respectfully request an unfavorable vote. Should you have any questions, please feel free to contact me at speters@hbstrategies.us.

Sincerely,

Sarah Peters
Executive Director