

United States Senate

WASHINGTON, DC 20510

September 17, 2018

The Honorable Howard “Skip” Elliott
Administrator
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Administrator Elliott,

We write regarding the September 13, 2018 natural gas explosions in Lawrence, North Andover, and Andover, Massachusetts. These explosions destroyed as many as 80 homes and buildings, caused upwards of 70 fires, injured at least 25 people, and caused one fatality—an 18-year-old from Lawrence who was killed when a chimney fell on his car. The explosions occurred in a distribution area handled by Columbia Gas of Massachusetts (“Columbia Gas”), which reported that 8,600 gas customers throughout the Merrimack Valley region were affected.¹

We appreciate the briefings that we have received from you and your staff on this disaster. We have requested a hearing in the Senate Commerce Committee on this incident. While we understand that the Pipeline and Hazardous Materials Safety Administration (PHMSA) has delegated its authority for regulation of intrastate pipeline facilities to the Massachusetts Department of Public Utilities (DPU), PHMSA is ultimately responsible for issuing and enforcing minimum safety regulations for both interstate and intrastate pipelines. We are therefore writing to request additional information on the PHMSA regulations intended to avoid incidents like this, or which direct the response to them.

Please provide responses to the following questions by the close of business on September 19, 2018:

1. PHMSA regulations require natural gas pipeline operators to prepare and submit an Integrity Management Plan. These plans contain steps that operators will take to ensure the safe and reliable operations of their pipeline networks. Although Integrity Management Plans are filed with state regulators, PHMSA and its state partners evaluate each operator’s Integrity Management Plan through inspections.

¹ *Incident in Merrimack Valley*, Columbia Gas of Massachusetts (Sept. 14, 2018), <https://www.columbiagasma.com/en/about-us/newsroom/news/2018/09/14/incident-in-lawrence>.

- a. Has PHMSA reviewed Columbia Gas' Integrity Management Plan for this region? Has PHMSA determined whether any part of this plan is non-compliant with safety regulations?
 - b. Would a PHMSA review of all Integrity Management Plans improve safety? If not, why not? If so, what steps is PHMSA taking to require a review of all such plans?
 - c. Please provide a complete and unredacted copy of Columbia Gas' Integrity Management Plan for this region and identify any portion of it that inspectors have ever found to be noncompliant.
2. PHMSA regulations at 49 CFR §192.615 require each operator to prepare and submit emergency response plans to minimize the hazards resulting from a gas pipeline emergency.
 - a. Has PHMSA reviewed Columbia Gas' emergency plan for this region? Has PHMSA determined whether any part of this plan is deficient?
 - b. Please provide a complete and unredacted copy of Columbia Gas' emergency plan for this region and identify any portion of it that PHMSA has ever found to be noncompliant.
 - c. Is PHMSA aware of any Columbia Gas actions in response to this incident that are inconsistent with its emergency plan?
3. According to the National Transportation Safety Board (NTSB), a pressure spike registered in a Columbia Gas control room in Columbus, Ohio on Thursday, September 13.
 - a. At what time did this pressure spike occur?
 - b. Should this pressure spike have triggered alarms in the control room?
 - c. Is PHMSA aware whether control-room alarms sounded?
 - d. Did Columbia Gas officials notice this pressure spike? If so, what actions did they take in response?
4. PHMSA regulations at 49 CFR §191.5 require pipeline operators to immediately report these sorts of pipeline incidents to the National Response Center. These regulations state, in part that the report must be filed "[a]t the earliest practicable moment following discovery, but no later than one hour after confirmed discovery."
 - a. At what time did Columbia Gas report this incident to the National Response Center, and did it do so within one hour, as required by the PHMSA regulations?

5. Columbia Gas had announced that it was “upgrading natural gas lines in neighborhoods across the state.”² PHMSA regulations contain an entire subpart relating to increasing the operating pressure of a pipeline system, and multiple parts regarding pipe replacement without the intention of immediately increasing the operating pressure of a pipeline system.
 - a. Please detail your understanding of the work that Columbia Gas was undertaking to upgrade its system and whether it complied with appropriate PHMSA regulations.
6. PHMSA regulations do not establish requirements governing pipeline companies’ contracting with third parties for this sort of upgrade work.
 - a. Does PHMSA believe that its regulations should include requirements for contracting with third party companies for this sort of upgrade work to ensure that the those companies are capable of doing it safely and are properly accredited? If so, what steps is PHMSA taking to establish those requirements? If not, why not?
7. In 2016, PHMSA issued a final rule that expanded the mandatory installation of excess flow valves in new homes. These devices can help avoid over-pressurization in some circumstances and minimize the risk of accidents.
 - a. Does PHMSA believe that requiring excess flow valves for all homes would improve the safety of the pipeline system in these sorts of events? If not, why not? If so, please detail what actions PHMSA is taking to require the installation of these devices?
 - b. What percentage of homes on the pipeline system where this incident occurred have these devices installed?

We look forward to your prompt responses to these questions and a full investigation into this disaster. Should you have any questions about this letter, please contact Morgan Gray in Senator Markey’s office at 202-224-2742.

Sincerely,


Edward J. Markey
United States Senator


Elizabeth Warren
United States Senator

² *Improving natural gas service across Massachusetts*, Columbia Gas of Massachusetts (Sept. 13, 2018), <https://www.columbiagasma.com/en/about-us/newsroom/news/2018/09/13/improving-natural-gas-service-across-massachusetts>.



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

September 19, 2018

Administrator

1200 New Jersey Ave., S.E.
Washington, DC 20590

The Honorable Edward J. Markey
United States Senate
Washington, D.C. 20510

Dear Senator Markey:

Thank you for your letter dated September 17, 2018, regarding the Columbia Gas of Massachusetts (Columbia Gas) natural gas distribution pipeline system incident that occurred on September 13, 2018, which severely affected the towns of Lawrence, Andover, and North Andover, and the Merrimack Valley region in the Commonwealth of Massachusetts. Thank you also for taking my call the evening of the incident. I appreciate and share your concern for the well-being of our fellow citizens and the protection of the surrounding environment.

The mission of the Pipeline and Hazardous Materials Safety Administration (PHMSA) is to protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives. As part of this mission, PHMSA administers a national regulatory safety program for the 2.8 million miles of interstate and intrastate pipelines in the United States. This program requires that pipeline operators design, construct, operate, and maintain their pipeline facilities in compliance with the Federal Pipeline Safety Regulations (PSRs) found in Title 49 Code of Federal Regulations (CFR) Parts 190-199. To ensure that operators comply with these regulations, PHMSA and its state partners conduct inspections of pipeline operators for compliance with the Federal PSRs.

The Federal pipeline safety laws provide the statutory basis for the pipeline safety program and establish the framework for promoting pipeline safety through exclusive Federal authority for the regulation of interstate hazardous liquid and gas pipeline facilities. Pursuant to Federal law, a state is granted authority by Congress to oversee inspections and safety compliance by operators of intrastate pipeline facilities, so long as the state certifies annually to PHMSA that it has adopted and enforces the minimum PSRs. A state may also adopt additional or more stringent standards for intrastate pipeline facilities, provided that such standards are compatible with the Federal regulations. Massachusetts has a certified State safety program for natural gas. Therefore, it has jurisdiction over intrastate natural gas pipeline facilities and assumes inspection and enforcement responsibility for intrastate facilities.

Sections 60105(e) and 60106(d) of Title 49, United States Code, provide for the monitoring of state pipeline safety programs by PHMSA. This annual monitoring is to ensure compliance with the Pipeline Safety Act requirements for state pipeline safety programs and provides information for determining the state's total point award for the PHMSA pipeline safety grant

for the following year. The Massachusetts Department of Public Utilities' (MA DPU) Division of Pipeline Engineering and Safety (Division) is certified by PHMSA for natural gas intrastate pipeline inspection and enforcement responsibilities. Under this certification, the MA DPU has jurisdiction for intrastate natural gas distribution and transmission pipelines, including the Columbia Gas intrastate pipeline facilities. The MA DPU works to promote public safety by overseeing intrastate pipeline construction, operation, and maintenance activities. The Division acts as the MA DPU's enforcement arm, ensuring that natural gas distribution companies, municipal gas departments, and other intrastate operators comply with the State and Federal regulations governing pipeline safety. The Division also oversees the State's Dig Safe Law to prevent damage to underground utility facilities.

In your letter, you pose questions related to integrity management (IM) programs, emergency plans, incident reporting, events regarding the incident, and excess flow valves (EFVs). I have restated and answered your questions below as they relate to the Federal pipeline safety regulations. Some of your questions pertain to the ongoing investigation and, therefore, cannot be addressed at this time. The National Transportation Safety Board (NTSB) is the lead agency for the ongoing investigation and is collecting evidence and documentation for this incident as part of its investigation to determine the probable cause. PHMSA is assisting the NTSB in this investigation.

1. PHMSA regulations require natural gas pipeline operators to prepare and submit an IM plan. These plans contain steps that operators will take to ensure the safe and reliable operations of their pipeline networks. Although IM plans are sometimes filed with state regulators, PHMSA and its state partners evaluate each operator's IM plan through inspections.

Title 49 CFR Part 192, Subpart P, *Gas Distribution Pipeline Integrity Management*, specifies the regulatory requirements that natural gas distribution pipeline operators must follow for IM. Under 49 CFR § 192.1005, a gas distribution operator must develop and implement an IM program that includes a written IM plan, as specified in 49 CFR § 192.1007. While 49 CFR § 192.1011 states that an operator must maintain records that demonstrate compliance with the requirements of this subpart for at least 10 years, there is no regulatory requirement for natural gas distribution pipeline operators to submit their IM plan to PHMSA or any state partner unless required by state law. However, all documentation and records, including an operator's IM plan, are subject to inspection by PHMSA and/or the state partner upon request.

a. Has PHMSA reviewed Columbia Gas's IM plan for this region? Has PHMSA determined whether any part of this plan is noncompliant with safety regulations?

The MA DPU has inspection and enforcement responsibility for natural gas distribution pipeline operators in Massachusetts, including the review of operator IM plans. PHMSA will monitor and assist MA DPU in its compliance investigation of this accident, as necessary.

b. Would a PHMSA review of all IM plans improve safety? If not, why not? If so, what steps is PHMSA taking to require a review of all such plans?

PHMSA does not review IM plans for natural gas distribution pipeline operators in states that have a certification issued by PHMSA, since inspection and plan reviews are the responsibility of the state in such cases. PHMSA does verify operator compliance with the Federal PSRs through the inspection process.

c. Please provide a complete and unredacted copy of Columbia Gas's IM plan for this region and identify any portion of it that inspectors have found to be noncompliant.

PHMSA does not have a complete and unredacted copy of Columbia Gas's IM plan as the MA DPU has inspection and enforcement responsibility for natural gas distribution pipeline operators in Massachusetts. The MA DPU is responsible for keeping records of its natural gas distribution pipeline operator inspections in Massachusetts, as well as any inspection findings.

2. PHMSA regulations contained in 49 CFR § 192.615 require each operator to prepare and submit emergency response plans to minimize the hazards resulting from gas pipeline emergencies.

As a clarification, under 49 CFR § 192.615, *Emergency plans*, each pipeline operator must establish and follow written procedures to minimize hazards resulting from gas pipeline emergencies. There is no regulatory requirement for pipeline operators to submit their emergency plans to PHMSA unless specifically requested, for example, during an inspection or by state law.

a. Has PHMSA reviewed Columbia Gas's emergency plan for this region? Has PHMSA determined whether any part of this plan is deficient?

As stated above, the MA DPU has inspection and enforcement responsibility for the Columbia Gas system. Accordingly, PHMSA has not reviewed the Columbia Gas emergency plan for its Massachusetts pipeline facilities, nor has PHMSA made any determinations of compliance regarding the Columbia Gas documentation.

b. Please provide a complete and unredacted copy of Columbia Gas's emergency plan for this region and identify any portion that PHMSA has found to be noncompliant.

The MA DPU is responsible for keeping records of its natural gas distribution pipeline operator inspections and emergency plans, as well as any inspection findings.

c. Is PHMSA aware of any Columbia Gas actions in response to this incident that are inconsistent with its emergency plan?

The investigation into the September 13, 2018, Columbia Gas incident is ongoing. The NTSB is leading the investigation. It will review the Columbia Gas procedural documentation and plans and will conduct interviews as part of its investigation. PHMSA currently has representatives on-site to provide technical assistance to the NTSB and the MA DPU. Details regarding the investigation and findings will be released by the NTSB.

3. According to the NTSB, a pressure spike registered in a Columbia Gas control room in Columbus, Ohio, on Thursday, September 13, 2018.

a. At what time did this pressure spike occur?

The NTSB will develop a timeline as part of its investigation. Details regarding the investigation and findings will be released by the NTSB.

b. Should this pressure spike have triggered alarms in the control room?

Under 49 CFR § 192.605, *Procedural manual for operations, maintenance, and emergencies*, pipeline operators must prepare and follow a manual of written procedures regarding operations and maintenance activities and emergency responses. The NTSB investigation will include a review of the Columbia Gas procedures, including its procedures for monitoring and controlling the flow and pressure of its system. The NTSB investigation will also look at the pipeline facility alarms, their set-points, and whether they functioned properly. Details regarding the investigation and findings will be released by the NTSB.

c. Does PHMSA know whether control room alarms sounded?

The NTSB will investigate how Columbia Gas became aware of the pressure increase on its system as part of the investigation. Details regarding the investigation and findings will be released by the NTSB.

d. Did Columbia Gas officials notice this pressure spike? If so, what actions did they take in response?

The NTSB will investigate how Columbia Gas became aware of the pressure increase on its system as part of its investigation. Details regarding the investigation and findings will be released by the NTSB.

4. PHMSA regulations in 49 CFR § 191.5 require pipeline operators to immediately report these sorts of pipeline incidents to the National Response Center. These regulations state, in part, that the report must be filed "[a]t the earliest practicable moment following discovery, but no later than one hour after confirmed discovery."

Operators are required to give notice at the earliest practicable moment following discovery, but no later than one hour after confirmed discovery, of certain incidents. Under 49 CFR § 191.3, *Definitions*, "confirmed discovery" means when it can be reasonably determined that a

reportable event has occurred based on information available to the operator at the time, even if the determination is only based on a preliminary evaluation.

a. At what time did Columbia Gas report this incident to the National Response Center, and did it do so within one hour, as required by the PHMSA regulations?

The first report that Columbia Gas made to the National Response Center (NRC), NRC#1224542, was recorded at 5:08 p.m. on September 13, 2018. The reporting organization was recorded as "Columbia Gas of Mass." The NTSB investigation will include the timing of when Columbia Gas became aware of the pressure increase on its system and how quickly it was reported.

5. Columbia Gas announced that it was "upgrading natural gas lines in neighborhoods across the State." PHMSA regulations contain an entire subpart relating to increasing the operating pressure of a pipeline system, and multiple parts regarding pipe replacement without the intention of immediately increasing the operating pressure of a pipeline system.

a. Please detail your understanding of the work that Columbia Gas was undertaking to upgrade its system and whether it complied with appropriate PHMSA regulations.

PHMSA does not monitor the upgrade work performed by individual natural gas distribution pipeline operators in states with a certification that covers natural gas distribution pipelines. State pipeline safety programs, including that of the MA DPU, are responsible for oversight and inspection as part of their certifications. A review of the work performed on the Columbia Gas facilities leading up to the incident will be performed as part of the NTSB investigation.

6. PHMSA regulations do not establish requirements governing pipeline companies' contracts with third parties for this sort of upgrade work.

The Federal PSRs require that every individual who performs a "covered task" on an operator's pipeline facility, whether employed by the operator or by a contractor, must be qualified to perform those tasks or be directed and observed by a qualified person. Title 49 CFR Part 192, Subpart N, *Qualification of Pipeline Personnel*, prescribes the minimum requirements for operator qualification of individuals performing covered tasks on a pipeline facility. A covered task is an activity, identified by the operator, that: (1) is performed on a pipeline facility, (2) is an operations or maintenance task, (3) is performed as a requirement of Part 192, and (4) affects the operation or integrity of the pipeline. The pipeline operator remains responsible for all work performed by its contract personnel.

a. Does PHMSA believe that its regulations should include requirements for contracting with third-party companies for this sort of upgrade work to ensure that those companies are capable of completing the work safely and are properly accredited? If so, what steps is PHMSA taking to establish those requirements? If not, why not?

Under current regulations, any individual (operator or contractor) performing a covered task on a regulated pipeline facility must be qualified in accordance with an operator qualification program. "Qualified" means that an individual has been evaluated, can perform his or her assigned covered tasks, and is able to recognize and react to abnormal operating conditions. Each operator must create and follow a written qualification program in accordance with 49 CFR § 192.805, *Qualification program*, and must ensure that all contractor personnel on a project are properly qualified.

7. In 2016, PHMSA issued a final rule that expanded the mandatory installation of EFVs in new homes. These devices can minimize the risk of accidents and, in some circumstances, help avoid overpressurization.

a. Does PHMSA believe that requiring EFVs for all homes would improve the safety of the pipeline system in similar circumstances? If so, please detail what actions PHMSA is taking to require the installation of these devices. If not, why not?

Excess flow valves (EFVs) improve pipeline safety in certain circumstances. On October 14, 2016, PHMSA amended the pipeline safety regulations to require the use of EFVs on new or replaced branched service lines servicing single-family residences (SFR), multifamily residences, and small commercial entities consuming gas volumes not exceeding 1,000 Standard Cubic Feet per Hour (SCFH) under certain conditions. Eligible customers may request installation of an EFV on existing service lines, and pipeline operators are required to notify all existing customers of the safety benefits of an EFV and of their right to request the installation of an EFV. See, 49 CFR §§ 192.383(d) and (e). Section 192.383(b) states that an EFV installation must comply with the performance standards in 49 CFR § 192.381. After April 14, 2017, each operator must install an EFV on any new or replaced service line serving the following types of services before the line is activated:

- (1) A single service line to one SFR;
- (2) A branched service line to a SFR installed concurrently with the primary SFR service line (i.e., a single EFV may be installed to protect both service lines);
- (3) A branched service line to a SFR installed off a previously installed SFR service line that does not contain an EFV;
- (4) Multifamily residences with known customer loads not exceeding 1,000 SCFH per service, at time of service installation based on installed meter capacity, and
- (5) A single, small commercial customer served by a single service line with a known customer load not exceeding 1,000 SCFH, at the time of meter installation, based on installed meter capacity.

An operator need not install an excess flow valve if the service line does not operate at a pressure of 10 psig or greater throughout the year. The Columbia Gas distribution system on which this incident occurred operates below 10 psig; therefore, EFVs would not be required.

b. What percentage of homes on the pipeline system where this incident occurred have these devices installed?

PHMSA would refer a request for this information to the system operator.

PHMSA takes the responsibility for pipeline safety very seriously and is committed to helping ensure that pipelines are designed, constructed, operated, and maintained in a safe manner. PHMSA will continue to support the NTSB and the MA DPU throughout their investigations. PHMSA will review the MA DPU pipeline safety program, including the investigation of this accident, during PHMSA's annual program certification. The MA DPU is one of 52 certified state pipeline safety partners and has been certified every year to continue pipeline safety program activities in the Commonwealth of Massachusetts.

Thank you for your commitment to pipeline safety and the protection of the environment. I share your commitment to pipeline safety both for the citizens of the Commonwealth of Massachusetts and the entire Nation.

I have sent a similar letter to Senator Elizabeth Warren. If you require additional information or assistance, please contact Bobby Fraser, Director of Governmental, International, and Public Affairs, by phone at (202) 366-4831 or via email at Bobby.Fraser@dot.gov. I hope this information is helpful.

Sincerely,

A handwritten signature in dark ink, appearing to read "H. R. Elliott". The signature is fluid and cursive, with the first name "H." being prominent.

Howard R. Elliott



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

Administrator

1200 New Jersey Ave., S.E.
Washington, DC 20590

September 19, 2018

The Honorable Elizabeth Warren
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Dear Senator Warren:

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In your letter, you pose questions related to integrity management (IM) programs, emergency plans, incident reporting, events regarding the incident, and excess flow valves (EFVs). I have restated and answered your questions below as they relate to the Federal pipeline safety regulations. Some of your questions pertain to the ongoing investigation and, therefore, cannot be addressed at this time. The National Transportation Safety Board (NTSB) is the lead agency for the ongoing investigation and is collecting evidence and documentation for this incident as part of its investigation to determine the probable cause. PHMSA is assisting the NTSB in this investigation.

1. PHMSA regulations require natural gas pipeline operators to prepare and submit an IM plan. These plans contain steps that operators will take to ensure the safe and reliable operations of their pipeline networks. Although IM plans are sometimes filed with state regulators, PHMSA and its state partners evaluate each operator's IM plan through inspections.

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a. Has PHMSA reviewed Columbia Gas's IM plan for this region? Has PHMSA determined whether any part of this plan is noncompliant with safety regulations?

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b. Would a PHMSA review of all IM plans improve safety? If not, why not? If so, what steps is PHMSA taking to require a review of all such plans?

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b. At what time did this pressure spike occur?

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b. Should this pressure spike have triggered alarms in the control room?

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c. Does PHMSA know whether control room alarms sounded?

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reportable event has occurred based on information available to the operator at the time, even if the determination is only based on a preliminary evaluation.

a. At what time did Columbia Gas report this incident to the National Response Center, and did it do so within one hour, as required by the PHMSA regulations?

The first report that Columbia Gas made to the National Response Center (NRC), NRC#1224542, was recorded at 5:08 p.m. on September 13, 2018. The reporting organization was recorded as "Columbia Gas of Mass." The NTSB investigation will include the timing of when Columbia Gas became aware of the pressure increase on its system and how quickly it was reported.

5. Columbia Gas announced that it was "upgrading natural gas lines in neighborhoods across the State." PHMSA regulations contain an entire subpart relating to increasing the operating pressure of a pipeline system, and multiple parts regarding pipe replacement without the intention of immediately increasing the operating pressure of a pipeline system.

a. Please detail your understanding of the work that Columbia Gas was undertaking to upgrade its system and whether it complied with appropriate PHMSA regulations.

PHMSA does not monitor the upgrade work performed by individual natural gas distribution pipeline operators in states with a certification that covers natural gas distribution pipelines. State pipeline safety programs, including that of the MA DPU, are responsible for oversight and inspection as part of their certifications. A review of the work performed on the Columbia Gas facilities leading up to the incident will be performed as part of the NTSB investigation.

6. PHMSA regulations do not establish requirements governing pipeline companies' contracts with third parties for this sort of upgrade work.

The Federal PSRs require that every individual who performs a "covered task" on an operator's pipeline facility, whether employed by the operator or by a contractor, must be qualified to perform those tasks or be directed and observed by a qualified person. Title 49 CFR Part 192, Subpart N, *Qualification of Pipeline Personnel*, prescribes the minimum requirements for operator qualification of individuals performing covered tasks on a pipeline facility. A covered task is an activity, identified by the operator, that: (1) is performed on a pipeline facility, (2) is an operations or maintenance task, (3) is performed as a requirement of Part 192, and (4) affects the operation or integrity of the pipeline. The pipeline operator remains responsible for all work performed by its contract personnel.

a. Does PHMSA believe that its regulations should include requirements for contracting with third-party companies for this sort of upgrade work to ensure that those companies are capable of completing the work safely and are properly accredited? If so, what steps is PHMSA taking to establish those requirements? If not, why not?

Under current regulations, any individual (operator or contractor) performing a covered task on a regulated pipeline facility must be qualified in accordance with an operator qualification program. “Qualified” means that an individual has been evaluated, can perform his or her assigned covered tasks, and is able to recognize and react to abnormal operating conditions. Each operator must create and follow a written qualification program in accordance with 49 CFR § 192.805, *Qualification program*, and must ensure that all contractor personnel on a project are properly qualified.

7. In 2016, PHMSA issued a final rule that expanded the mandatory installation of EFVs in new homes. These devices can minimize the risk of accidents and, in some circumstances, help avoid overpressurization.

a. Does PHMSA believe that requiring EFVs for all homes would improve the safety of the pipeline system in similar circumstances? If so, please detail what actions PHMSA is taking to require the installation of these devices. If not, why not?

Excess flow valves (EFVs) improve pipeline safety in certain circumstances. On October 14, 2016, PHMSA amended the pipeline safety regulations to require the use of EFVs on new or replaced branched service lines servicing single-family residences (SFR), multifamily residences, and small commercial entities consuming gas volumes not exceeding 1,000 Standard Cubic Feet per Hour (SCFH) under certain conditions. Eligible customers may request installation of an EFV on existing service lines, and pipeline operators are required to notify all existing customers of the safety benefits of an EFV and of their right to request the installation of an EFV. See, 49 CFR §§ 192.383(d) and (e). Section 192.383(b) states that an EFV installation must comply with the performance standards in 49 CFR § 192.381. After April 14, 2017, each operator must install an EFV on any new or replaced service line serving the following types of services before the line is activated:

- (1) A single service line to one SFR;
- (2) A branched service line to a SFR installed concurrently with the primary SFR service line (i.e., a single EFV may be installed to protect both service lines);
- (3) A branched service line to a SFR installed off a previously installed SFR service line that does not contain an EFV;
- (4) Multifamily residences with known customer loads not exceeding 1,000 SCFH per service, at time of service installation based on installed meter capacity, and
- (5) A single, small commercial customer served by a single service line with a known customer load not exceeding 1,000 SCFH, at the time of meter installation, based on installed meter capacity.

An operator need not install an excess flow valve if the service line does not operate at a pressure of 10 psig or greater throughout the year. The Columbia Gas distribution system on which this incident occurred operates below 10 psig; therefore, EFVs would not be required.

b. What percentage of homes on the pipeline system where this incident occurred have these devices installed?

PHMSA would refer a request for this information to the system operator.

PHMSA takes the responsibility for pipeline safety very seriously and is committed to helping ensure that pipelines are designed, constructed, operated, and maintained in a safe manner. PHMSA will continue to support the NTSB and the MA DPU throughout their investigations. PHMSA will review the MA DPU pipeline safety program, including the investigation of this accident, during PHMSA's annual program certification. The MA DPU is one of 52 certified state pipeline safety partners and has been certified every year to continue pipeline safety program activities in the Commonwealth of Massachusetts.

Thank you for your commitment to pipeline safety and the protection of the environment. I share your commitment to pipeline safety both for the citizens of the Commonwealth of Massachusetts and the entire Nation.

I have sent a similar letter to Senator Edward J. Markey. If you require additional information or assistance, please contact Bobby Fraser, Director of Governmental, International, and Public Affairs, by phone at (202) 366-4831 or via email at Bobby.Fraser@dot.gov. I hope this information is helpful.

Sincerely,

A handwritten signature in dark ink, appearing to read "Howard R. Elliott". The signature is fluid and cursive, with the first name "Howard" being the most prominent part.

Howard R. Elliott