

Excess Flow Valves for Multi-Residential and Commercial Applications

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Docket: PHMSA - 2011 - 0009

Gas Pipeline Advisory Committee
December 17, 2015



Brief History of Excess Flow Valves

- Between 1970 and 2001, NTSB issued more than 10 recommendations that dealt with using/installing excess flow valves (EFV)
- The most recent NTSB Safety Recommendation on EFVs, P-01-2, is addressed in this proposal
- In the past, mandatory EFV installation was not supported:
 - EFVs were perceived as unreliable
 - Concerns about unintentional EFV closure, causing pilot burners to go off
 - Potential cost to relight all pilots & deal with public complaints
 - Operators believed EFVs interfered with O&M activities
 - Concerns that frozen moisture can block EFV's small opening in winter
 - Cost/benefit numbers were too high
 - Limited availability of large volume EFVs
 - Difficult to size at varying loads
 - Do not work below 10 psig



PHMSA Actions on Excess Flow Valves

- Dec 1990- ANPRM on seeking info on EFVs
- Apr 1993- NPRM on EFVs for SFR and Performance Standards
 - Due to objections to mandatory EFVs from NARUC and industry, only performance standards were adopted.
- April 1995- Notified Congress about RSPA's decision for Customer notification rule
- Feb 1998-Customer notification for EFVs published
- 2004-5- Study Teams formed to consider mandatory installation of EFVs
- 2005- NRRI study and surveys on EFVs
- Dec 2009-Final rule on EFVs for SFR issued with DIMP rule
- Mid 2009 -Large EFV Stakeholders meetings & public workshop
- Sep 2011 – Large EFV Interim Rpt ; Nov 2014 - Final Rpt
- Nov 2011 –Large EFV- ANPRM
- July 2015- Large EFV - NPRM



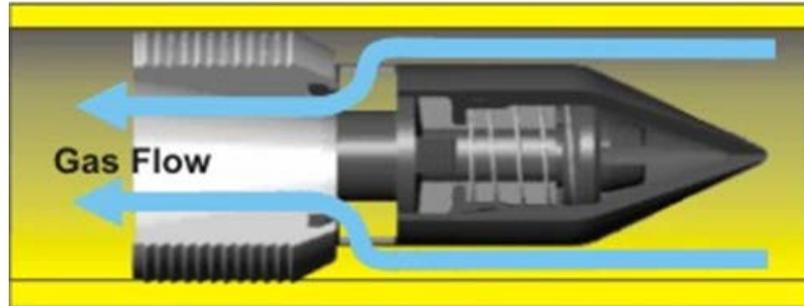
What is an Excess Flow Valve?

What is a Curb Valve?

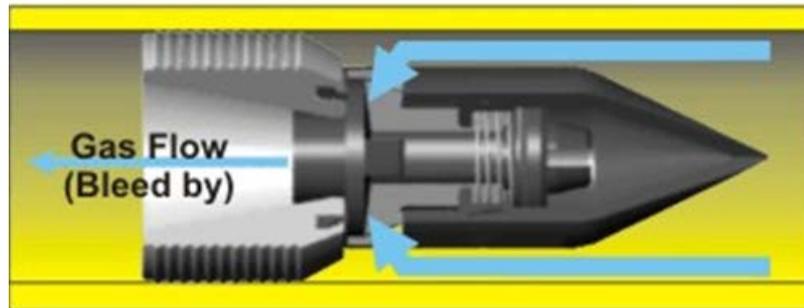
- Excess flow valves (EFV) provide a means to reduce the risk of explosion by shutting off unplanned excessive gas flows, caused primarily from excavation damage to service lines occurring between gas mains and buildings.
- Curb valve means a manually operated valve located near the service main to manually shut off gas flow to the service line in the event of an emergency.



Excess Flow Valve



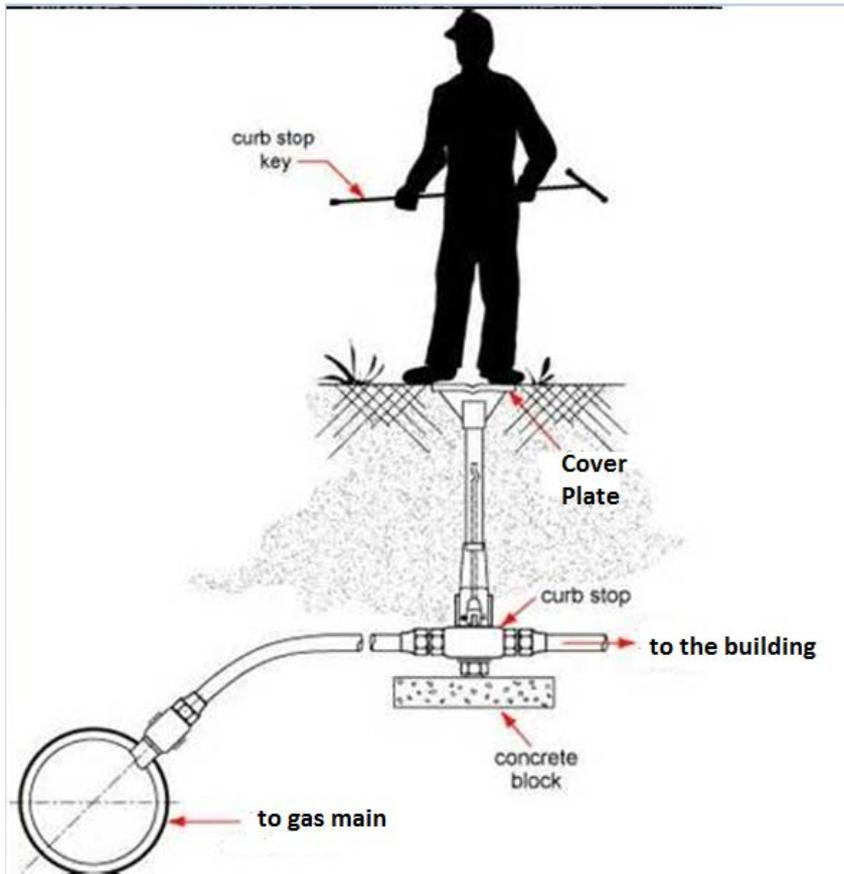
Open Position



Closed Position
Full Cut-a-way view



Curb Valve



Where are EFVs Currently Required?

- Gas distribution pipeline operators, since Feb 2, 2010, are required to install EFVs in new and replacement service lines supplying single family residences .
- PIPES Act 2006 did not mandate that EFVs be installed on service lines of branched single family, multi-family, or commercial properties.



Act 2011 & NTSB Rec. P-01-2

- Sec. 22 of Act 2011 (Effective Jan 3, 2012)
 - After Jan 3, 2014, operators must install EFVs or equivalent technology on new or replaced branch services, multi-family, and small commercial facilities where economically, technically, and operationally feasible
- NTSB issued P-01-2 on June 22, 2001
 - PHMSA should require installation of EFVs on all new and replacement service lines, regardless of customer's classification, when operating conditions are compatible



Comment Summary

- NPRM published 7-15-2015; Comment period ended 9-14-2015
- PHMSA received comments from 12 entities

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- American Gas Association (AGA)
 - American Public Gas Association (APGA)
 - Gas Piping Technology Committee (GPTC)
 - MidAmerican Energy Company (MAE)
 - Northeast Gas Association (NGA)
 - New Mexico Gas Company (NMG)
 - National Propane Gas Association (NPGA)
 - NiSource (NS)
 - National Transportation Safety Board (NTSB)
 - Pipeline Safety Trust (PST)
 - Sierra Pacific Power Company (SPPC (d/b/a NV Energy))
 - Southwest Gas Corporation (SWG)



Comment Summary

- The majority of commenters explicitly support expanding EFV applications beyond single-family homes for new and replaced services.
- The rule is seen as “reasonable and practical” by most, assuming minor clarifications and changes are made.
- Majority of comments are minor in nature and would be addressed in the final rule.
- Topics where commenters had concerns are as follows:
 - Curb Valve Accessibility to First Responders
 - Curb Valve Maintenance
 - Evidence of Notification Documentation



Comments on NPRM

Major Topics (concerns)

- Curb Valve accessibility to first responders §192.385(a)
- Curb Valve maintenance - §192.385(c)
- Customer documentation of notice - §192.383(f)

Minor Topics (clarification)

- Effective date - §192.383(b)
- Exceptions to right to request EFV - §192.383(c) (d) (e)
- Authority to determine cost recovery- §192.383(d)
- How are existing customers notified - §192.383(e)
- EFV installation flexibility - §192.385(b)



Curb Valves—First Responder Accessibility

§192.385 (a)

Definition: Curb valve accessible to first responders

- Other than NTSB & Pipeline Safety Trust, all listed commenters strongly discouraged requiring curb valves be “accessible to first responders” (FR).
- Language implies PHMSA expects FRs to operate these valves, which goes against operator policy and PHMSA-supported “Pipeline Emergencies” responder training.
- FRs might close wrong valves, leading to further consequences or outages.



Curb Valve Maintenance

§192.385 (c)

- Are manual service shut-off valves subject to valve maintenance requirements at 192.747?
- Previous PHMSA interpretations say curb valves are not subject to 192.747.
- Proposed rule did not consider the costs/benefits of requiring curb valve inspections and maintenance.



Documentation of Customer Notification

§192.383(f)

Operator evidence of customer notification

- The preamble suggests evidence of notification could include a statement printed on bills or mailings and further suggests PHMSA is not proposing operators keep records that any individual customer was notified.
- Documenting individual notifications major, costly undertaking. Operators should retain a single copy of notice & a listing of the customers or by documenting the general communication.
- PHMSA should allow LPG operators to perform recordkeeping as an option and not a requirement to allow LPG operators to choose best practices for their businesses and customers.



Effective Date

§192.383(b)

After Jan 3, 2014, each operator must install an EFV on any new or replaced service lines

- The proposed language indicates a retroactive EFV installation requirement.
- Commenters recommended allowing a compliance schedule of 6 months from the effective date of the final rule to review procedures, acquire EFVs, etc.



Notifying Customers where EFV Installation Not Feasible?

§192.383 (c)(d) & (e)

Exceptions: Pressure <10 psig; Contaminants in gas stream; Interfere O&M activities; EFVs not available

- The regulations should avoid suggesting customers have a right to request an EFV in situations where it is not feasible to install one, and operators should not have to notify customers of their right to request an EFV in these situations.



EFV Cost for Existing Lines

§192.383(d)

Existing service line Customer's right to request an EFV.

- AGA suggested customers be notified of the cost associated of retrofitting an existing line with an EFV.
- NPGA asked PHMSA to assign the cost of EFV installation on existing lines to the customer.
- The cost to retroactively install an EFV on an existing line is more significant than on new/replaced construction and was not accounted for in the cost/benefit analysis.



Authority to Determine Cost Recovery

§192.383(d)

Appropriate State regulatory agency determines whom and/or how the costs are distributed

- AGA and APGA argued PHMSA leave the determination of cost recovery rates to the operator and whatever body approves the operator's gas rates.
- PHMSA's proposal to permit State regulatory authorities to determine what party is responsible for installation costs when a customer requests an EFV is problematic for public gas utilities and LPG operators who are not typically subject to State agency cost-setting and might not easily be able to pass costs on to consumers.



How are Existing Customer Notified?

§192.383(e)

Operator notification of customers concerning EFVs

- Requiring operators provide broad communications is a reasonable requirement.
- Individual, dedicated communications would be overly costly and burdensome.
- Operators should have the option for notification via a “new customer” packet mailing, bill inserts, public awareness programs, or other electronic or printed means.



Installation Flexibility

§192.385 (b)

Operator must install manual valve for service > 1000 SCFH

- Final rule should allow flexibility, based on sound engineering judgment, to install either a manual valve or EFV on applications operating at greater than 1,000 SCFH.
- No scenario should require both a manual valve and an EFV.



Summary of Regulatory Impact Analysis

- Impact primarily on gas distribution operators ~ 1300
- The proposed rule would cover about 222,100 services/year
- EFVs on 181,100 services & Curb Valves on 41,000 services
- Benefit includes reduced fatalities, injuries, and property damages from preventable incidents and stretches over 50 years



Summary of Regulatory Impact Analysis

- Cost per EFV is \$30. (Sensitivity analysis with \$15 and \$50.)
- Cost per Curb Valve is \$55. (Sensitivity analysis with \$10 and \$100.)
- Cost totals include small additional notification and recordkeeping.

	<u>Annualized Benefits</u>	<u>Annualized Costs</u>
3% Discount rate	\$15 million	\$4.9 - 20.3 million
7% Discount Rate	\$7.7 million	\$4.4 - 17.8 million

